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JULY, 1884.

THE WEATHER at midsummer, as our readers scan these pages, will, no doubt, be enjoyable to most of them; the sun ascended to the highest point in the heavens is pouring upon us his greatest heat, and vegetation responding thereto is building up its tissues in accordance with the laws of its nature, preparatory to the useful ends it shall subserve to man and beast. Our long winters in northern regions, and the great amount of unpleasant weather during the spring months prepare us for a feeling of active, conscious gratitude for the genial summer heat. Now, we can also forecast with some probability the results of our horticultural efforts; but our estimates must lack positiveness. An experience, like that of last year, when the deficient heat prevented the vigorous growth of our late field crops and fruits, and severe frosts cut them off before maturity, teaches us caution in our calculations of the future, and enforces the lesson of the homely old saw in regard to counting chickens before they are hatched. The cold, wet summer of last year was unfortunate for great numbers of our rural population, and it is not strange that there has since been a wide-spreading feeling of depression among them.

In our last number we recorded the general condition of the orchards, vineyards and small fruits as they were re-

ported at the middle of May. With the exception of portions of some of the Western States, the prospect was unusually gratifying, and we are happy to say that, to-day, June 6th, the situation remains equally pleasing in many parts; on the contrary, in many places, frosts have done much destruction to fruits of all kinds, and to young Corn, Potatoes, and other tender garden and field crops. The mornings of May 29th and 30th revealed frost and ice over a large part of the Northern States. Most of our fruits were in bloom, or had just set their fruit. Reports from some parts of Wisconsin, Illinois, Michigan, Ohio, Pennsylvania, Vermont, New Hampshire, Canada and this State show great loss and injury to orchards and small fruits. The frost appears to have been injurious in some localities, while in others it was not severe enough to cause much harm, and thus there are areas of greater or less extent in all parts of the country where the injury is little or naught. The grape-growing region of the Hudson river, if we may judge by reports, suffered severely, and vineyards in some localities in the western part of the State are quite ruined for the season. At this time but few details have been received. A number of published reports notice the effects of the frost at different elevations in the same localities: an elevation of

only thirty feet, says one writer, gave much advantage. On low land Corn, fruit and vegetables suffered more than similar crops at slight elevations. Reports of the frosts continue to be made, but it will probably be some weeks before the damage can be well estimated.

This event was not wholly unexpected; careful observers of the weather had noted for more than a year past the frequent variations to extremes of temperature, terms of unusual heat being quickly followed by a period of low temperature. As we have previously noticed at different times these extreme variations of temperature, often accompanied by high winds or destructive tornadoes, have been proved, by daily observations made during the past eighteen months, to be concurrent with great solar disturbances characterized by the appearance of what is popularly known as sun-spots. Observations tending to this conclusion have been made by many scientists during the last hundred years, but a carefully prepared record of observations made systematically from day to day, and which leaves no longer any room to doubt the relation of these coincidences as cause and effect, is due to the pains-taking efforts of our fellow-townsman, Mr. H. C. MAINE, whose labors in this field were noticed in our last volume; and we are pleased to say their merits are now receiving recognition by scientists and intelligent observers in all parts of the country.

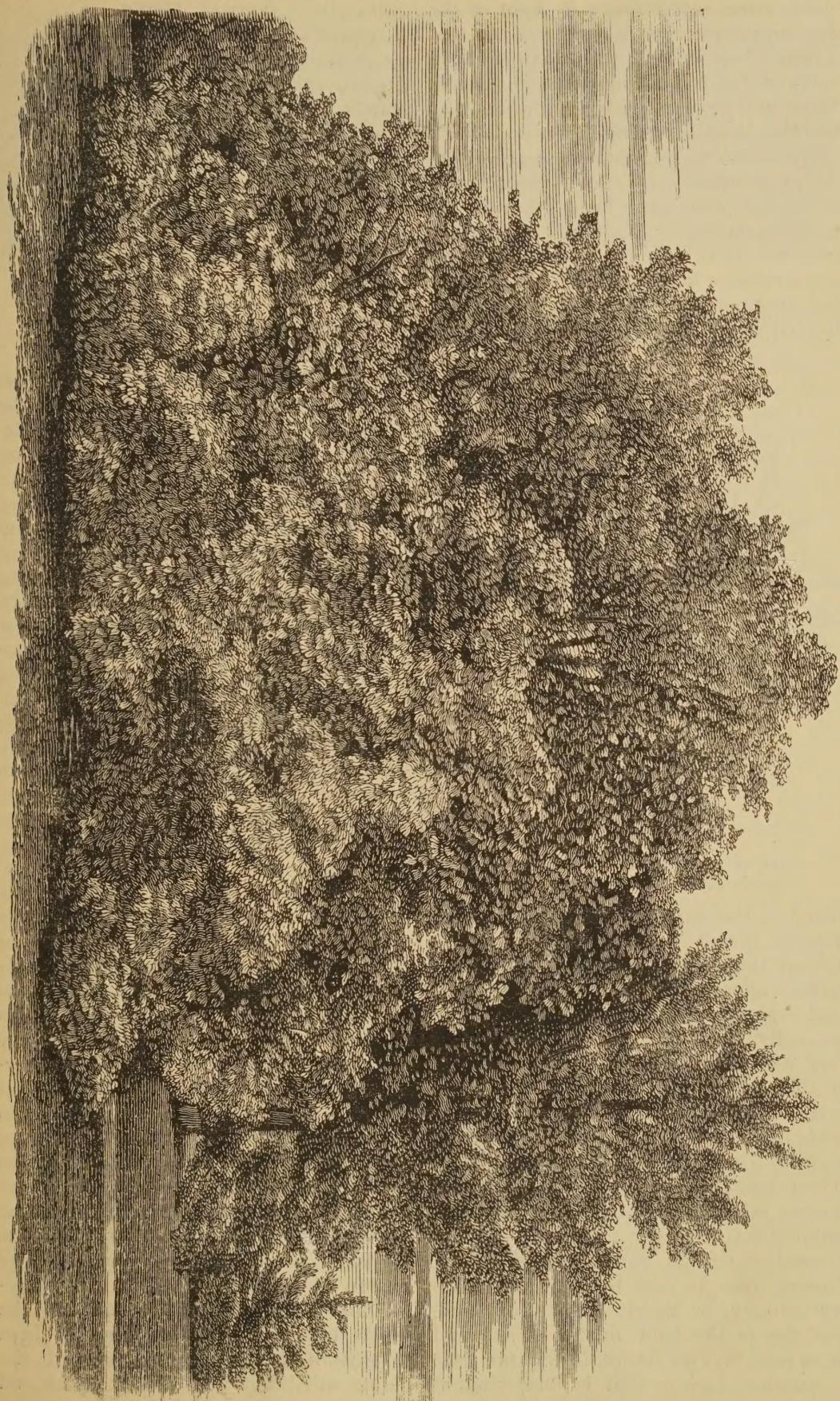
Sun-spots and electric storms in connection therewith were frequent all last summer, continued through the winter, and were still common late in spring. During all this time we have been subject to great and sudden changes of temperature, and the knowledge of these conditions caused anxious forebodings in the minds of many in regard to the weather of spring at that critical time when the balance of heat and cold should be so evenly laid that a fall in temperature marked only by a few degrees of the thermometer would bring destruction to vegetation in the tender blade. And so, to some extent, have these fears been realized, but fortunately, in a great measure, we have escaped. We have heard the remark, but do not know how true it may be, that so cold a summer as that of 1883 has not been experienced

since 1842, nor so injurious a spring frost since 1859. If the solar disturbances as indicated by the sun-spots so immediately affect the weather, can any indication be discovered for the next few months? Only this: sun-spots are apparently becoming less numerous, they appear at longer intervals, and the solar commotions are perhaps less violent. From the experience of the past they must be expected to decrease in number and intensity for the next four or five years, with the effect on our atmosphere of disturbing its tranquility less and less. It is to be hoped the crops of the present season may be gathered at full maturity.

It is proper that we make one inquiry: May cultivators of the soil expect anything favorable to their interests to result from solar observations? A general answer in the affirmative may be given. We have not space now to devote to this subject to trace the various ways in which it might be of advantage for the farmer and the gardener to be apprised of the general character of the weather for months in advance, but some of these will be suggested to every thoughtful person. The application of knowledge to the arts and economic pursuits in our days follows closely upon its acquisition.

THE NORWAY MAPLES.

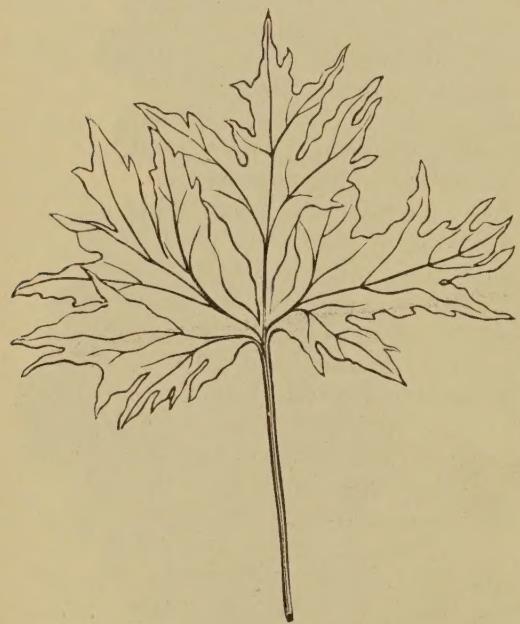
The Norway Maple, *Acer platanoides*, is becoming fairly well known in this country as a most valuable shade tree for streets, parks and large grounds, but there are several varieties of it that are worthy of attention that are less known, and we present herewith an illustration of a fine specimen of the variety, *dissectum*. It represents a tree about twenty-five feet high and forty feet in diameter, thickly set with branches from base to tip and covered with dense foliage. This tree when two or three years old was planted about twenty-five years since. For the lawn and park it is a most beautiful object. The leaf is borne on a stout petiole about six inches in length; the blade is about nine inches across and five inches in length, cut nearly to the center into three lobes, and these lobes deeply cut into smaller divisions. The upper surface of the leaf is a rich, dark green, the under side a lighter green, and both quite smooth.



The close resemblance in form of the general outlines of the leaf and the tree is quite noticeable, the proportion of height to breadth being about the same. The plants of this variety are increased by budding, and they will, therefore, always remain rather scarce and high-priced. Although this variety is not a rapid grower, as already may have been inferred, yet when growing in good soil it strongly impresses one with its healthy, vigorous appearance. In this respect it is in striking contrast to some other varieties of the Norway Maple, or, to be more partic-

Schwedler's Norway Maple. This tree is remarkable for its robust growth and its rich, dark leaves, which on the new growth are a rich crimson. When the leaves first come out in the spring the tree is one bright glow, like the deepest tints of autumn leaves; later in the season the leaves assume a dark green color, but the new growth at the tips of the shoots show the bright colors against the dark green background of the older leaves.

CALIFORNIA POPPIES.

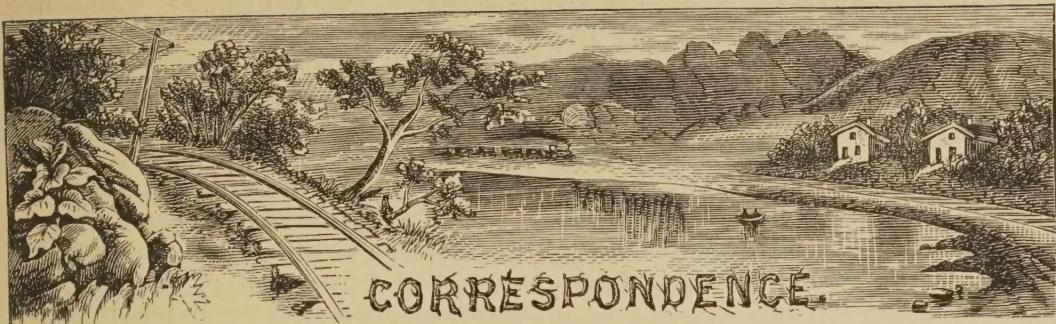


LEAF OF *ACER PLATANOIDES DISSECTUM*,
ABOUT ONE-FOURTH NATURAL SIZE.

ular, to the variety *laciniatum*, or the Eagle's Claw Norway Maple, which, though the leaf is curious, but with a half-wilted appearance, is a feeble grower, and evidently is lacking in constitutional strength; the variety *cucullatum*, Curled-leaf Norway Maple, is but little better in this regard, and neither of the latter can be recommended except to those who have plenty of space and a desire to form a collection of interesting trees. The present subject, however, is one that cannot fail to be an object of beauty and admiration wherever the conditions are favorable for its perfect development. Young trees as sent from the nurseries are usually, or nearly always, crooked, but this is the habit of the variety and does not affect the future form of the tree.

Another variety that is deserving of particular attention by tree planters is

These are among the best of the yellow flowered annuals. All who have seen the *Eschscholtzias* in California write in describing them, as seen there covering large areas, as of extreme brilliancy. To be most effective in the garden they should be planted in masses or patches of considerable size. The *Eschscholtzia* is closely related botanically to the true Poppy. The calyx, like that of the Poppy, falls away as the flower opens. The petals are four in number; the stamens more than ten; the fruit is a long pod, some three or four inches in length, containing many seeds. The leaves are finely divided, of a light green color and smooth. The plants are less than a foot in height and freely produce the large, splendid blooms. *E. Californica* has pure yellow flowers with a saffron center. *E. crocea* is of a saffron color throughout; a variety of this species, shown at the left side of the colored plate, has flowers of a creamy white, and this is known as *E. crocea alba*. Though we mention this plant as an annual it is really a perennial in mild climates. At the north it can only be treated as an annual, and the seeds are usually sown early in the season, where the plants are to bloom; but it is still better to sow the seeds late in autumn, and they will then be ready to germinate at the first opportunity in spring, making much stronger plants and coming sooner into bloom than if the sowing is delayed until the soil can be prepared in spring. A much longer season of blooming can be had by removing the seed-pods as soon as the petals drop, and allowing none of them to mature the seed; thus treated, the plants will break into new growths and keep up a succession of blooms.



CORRESPONDENCE.

ARRANGEMENT OF FLOWERS.

The arrangement of cut-flowers for decorative purposes ought to be classed among the fine arts. I have sometimes thought it required as much talent to form an artistic bouquet as it does to paint a picture. The artist, with his brush and colors, essays to produce something that shall represent nature, and the closer he copies nature the greater will be his success. The bouquet-maker takes his living colors and essays to produce a picture, and his success also depends on his imitation of nature. And as the would-be artist may take the same brush and colors used by the master hand, and yet produce a thing fit only for a scare-crow, so the would-be bouquet-maker may take flowers, each beautiful in itself, and form a hideous thing, a suitable companion to the scare-crow picture. To be successful, then, as bouquet-makers we must study the colors and tints of our flowers, as the artist studies the colors and tints on his canvass.

But why, do you ask, shall we spend time and thought in the arrangement of a few flowers, fleeting things of an hour? The most exquisite bouquet would last little more than a week. Why compare the bouquet with the picture at all? The one is for a life time, the other for a day. Are you so sure of that? Suppose a stranger comes into your parlor for a brief quarter of an hour; he may never come again. On the wall hangs a beautiful picture that cost you days of labor; on the center table stands a vase of flowers, that in the production here cost you hardly as many hours. Which will that stranger carry longest in his heart, the picture, or the flowers? The flowers, doubtless.

I recall to mind, with all the vividness

of yesterday's occurrence, a bouquet of flowers I saw years ago, one lovely Sunday morning in June, in a city church. On a small table stood a tall vase filled with Ferns, white Water Lilies and trailing vines. Each Lily stood out distinctly against the green background of Ferns, while the delicate vines turned down about the vase and swept gracefully over the table. I had seen pictures before, I have seen pictures since, yet none that I have ever seen have left the impress on my mind that that most beautiful and artistic bouquet did. That picture is a living one, engrossed in memory. Shall we say, then, that it was no matter how those flowers were arranged? Shall we say that they faded in a week? Nay, they are as bright and fresh to-day in one mind, at least, as they were that Sunday morning. Those Lilies touched my heart as deeply as the sermon, for flowers speak to us of the love and mercy and wisdom of GOD, if we will attune our hearts to listen to their voices. And the bouquet also taught me art.

In the arrangement of cut-flowers we too often make the mistake of using too many flowers and too many colors together. We shall learn better if we study nature more. She never makes mistakes in either respect. I believe if we could trace each flower to its native home, we should know just what flowers and colors would harmonize; that is, I think we should find flowers in a state of nature growing near each other and blooming at the same time, that would combine harmoniously, so that we might be sure that there would be no conflicting of colors, without studying the matter at all. This is my theory, and so far as I am able to judge from what I have seen of nature, I think it is a correct one. Take, for example, the Golden Rod and

the wild Asters, which bloom at the same time, these, with the aid of wild grasses and Ferns, form a beautiful combination. With this rule to follow, we could scarcely make a mistake in the matter of coloring, though we might in the matter of massing; while in selecting flowers from our gardens, where flowers from almost every clime grow, we have not only to guard against mistakes in massing, but in coloring also.

If we are not sure what colors look well together, it is best to be on the safe side and choose but one, with white and green to offset it. Pink and lilac, or the royal purple of Pansies, harmonize. A little yellow is pretty and effective with most combinations, but should be used sparingly. The prettiest thing I know of in yellow is the Golden Rod and yellow Honeysuckle for vases, and Rose buds for round pieces.

We have not only to study color and massing, but form as well. A flower that is appropriate to one form of flower-piece we shall find utterly unfit for another. Sprays and feathery flowers are prettiest for tall flower-pieces, with one or two large flowers; while many flowers are suitable only for round or low pieces. Many can be used only for low pieces unless sticks are tied to them for stems, and who admires that?

We have also to take into thought the use our flower-piece is to be put to, and this leads us to study distance, as well. A bouquet that may be beautiful on your dining-table would, perhaps, exhibit but little beauty when seen at a distance. Distance does not always lend enchantment to the view; it quite as often detracts from it.

In church decoration, where the pieces are high and flat, be sure that there is plenty of green as a background, or the effect of coloring will be lost. Grasses, Oats, Wheat and many weeds have a graceful appearance at a little distance. Golden Rod and wild Asters may not appear, on close inspection, as pretty as many other flowers, but they are very effective at a little distance. Delicate vines draped about the vase add much to any tall flower-piece.

Lastly, we may be sure that time spent in the arrangement of flowers is time well spent, and will prove as great an educator of the higher sensibilities as

painting or embroidery. Give as much thought to the arrangement of the flowers you wear in your hair as you do to the arrangement of your hair itself.—A. C. F., *Muskegon, Mich.*

ROOT CROPS—PRIZE ESSAY.

[Continued from last month.]

One advantage the Turnip has over the roots already treated, is that the best time for sowing it is six to ten or twelve weeks later. Not only is the time from its seeding to its harvest shorter, but since much of its growth takes place late in the fall, when weeds are not so numerous nor so rampant, the labor of cultivation is, on the whole, much less.

Purslane, (called Pusley, for short,) Portulaca oleracea, of the botanists, is the worst weed the Turnip has to contend with. Being most troublesome on old garden soil, it can be avoided by selecting fresh ground each year. A portion of the corn-field specially enriched, if necessary, answers the purpose admirably. When the farmer's spring grain is all sowed, his Potatoes and Corn planted and he has obtained a little rest by working out his road tax, say some day between June 15th and July 4th, when a soaking rain having fallen the previous night, the earth is too wet for cultivating Corn, and the weather is yet too unsettled to touch the hay, he may turn to the piece of ground which was manured, plowed, harrowed and set aside six weeks before for Ruta Bagas. If not already rich enough, a dressing of well-rotted manure should be spread upon the surface, the ground be then plowed again, harrowed and rolled or planked until thoroughly fine. The "planker" was originally a stone-boat, with smooth bottom, three feet wide by six feet long, but it is now much improved by fastening the planks crosswise, lapping like clapboards on a house. Its width has also been extended until it is of square form.

I have struck out the rows for Swedes on the level surface, but prefer ridges. The ridges cost some labor to make, and are, theoretically, at least, drier than the level ground. On the other hand, upon them a beating rain is not so apt to wash the earth over the young plants, and the bean cultivator, or even the ordinary corn cultivator, carefully handled, may be run between the rows while the plants

are yet small, without outlining the rows previously, as recommended in cultivating Parsnips. I form the ridges with the shovel plow, making them twenty-four to twenty-eight inches apart, the latter by preference. The top is smoothed with the garden rake and the seed drilled in at the rate of two pounds per acre. Some have good success raising Ruta Bagas and also Beet plants in a seed-bed and transplanting them; but I think the method not advisable on any but a small scale, nor even then under ordinary circumstances.

The advantage of pressing the earth into close contact with the seed cannot be too highly insisted upon. I go over the ground with a two-horse roller after sowing Beets and Turnips, and sometimes after sowing Carrots and Parsnips, although the earth being naturally moister early in the season, these do not require it so much, and it may induce baking.

As soon as up, dust the Ruta Bagas plants with air-slacked lime, plaster, soot, ashes, superphosphate, or road dust, to repel the flea. Later, the Cabbage plant-louse, *Aphis brassica*, is sometimes troublesome. As it works principally on the lower side of the leaf it is pretty hard to get at it with any application. The best remedy is to keep the plants growing rapidly by thorough cultivation. The Cabbage worm, *Pieris rapæ*, is another enemy, but owing to the spreading leaves of the Turnip it does but little damage. Still another enemy is the Radish maggot, which works in the root. It is much less troublesome upon new or fresh ground than upon old garden soil.

When three or four inches high and past danger from the flea, thin the plants to ten or twelve inches apart in the row. It is not profitable to raise Ruta Bagas on land upon which they must be left closer than nine or ten inches, at least. No set rule can be given as to the number of times to hoe or weed any root crop. The surface must be kept mellow and free from weeds; that is all.

As to varieties of Swedes, one can hardly go amiss. I have tried many and found all good. The reader is referred to the catalogues. The main thing is to get fresh seed, which can only be obtained with certainty from a reliable seedsman. I wish to impress the fact here, that it does not usually pay the

grower to raise his own seed. The man who makes a specialty of it can do it much cheaper and better than he can.

The yield of Ruta Bagas runs from four hundred to one thousand bushels per acre. Rent of land and prices of manure and labor vary so much in different sections and localities that it is impossible to give figures of general application in estimating cost. Setting the total expense at \$50 per acre, and the yield at five hundred bushels, the cost per bushel is ten cents. If the total expenses be \$80, and the yield one thousand bushels, the cost per bushel is eight cents. I have seen crops raised for less per bushel and have known of others that cost much more. All farm animals are fond of, or can be taught to like, Ruta Bagas. The only objection to them is that they impart a peculiar taste to milk and butter, but this can be easily avoided by feeding the cows immediately after milking.

White or English Turnips may be sowed from July 15th to September 1st. The value of the White Turnip is principally as a catch-crop on land otherwise good, but too wet for an earlier crop; also, on land from which an early crop of Potatoes, Peas, &c., has been removed. In either case it is well to plow the ground, harrow, roll, and harrow again a week or two before sowing, leaving it somewhat rough until a good shower of rain falls, after which it should be stirred with the cultivator and fined as thoroughly as may be. If the seed be drilled in, the rows may be twenty to twenty-four inches apart, the plants to stand, after thinning, six to ten inches apart. Two pounds of seed may be sown to the acre; less might answer, but it is well to err on the safe side. White Turnips are often sowed broadcast, but this is not usually the best way, as cultivation must be done altogether by hoe and fingers. Yet, under exceptionally favorable circumstances, upon new land, free of weeds, and with very thin but even seed-ing, extraordinarily large crops have been thus raised at a minimum of cost.

Insect enemies are the same as of the Swedes, but seldom so troublesome. Cultivation is comparatively inexpensive. Crop ranges from two hundred to twelve hundred bushels per acre. A less crop than two hundred bushels oftentimes pays expenses. Advantages not to be

overlooked are the destruction of weeds and the conversion into valuable cattle-food of elements liable to be dissipated into the air from the bare surface of the land.

White Turnips are apt to become spongy late in the winter. They should, therefore, be fed before the firmer roots. White Flat Dutch, White Norfolk, White Globe, Purple-top, Strap-leaf, are all good standard sorts.

The yellow kinds of English Turnips I have not tried, with the exception of Orange Jelly, an excellent table variety. Harvesting and storing present no points of special note.

We now come to the consideration of the root which seems best adapted of all for general cultivation in America, the Beet, and particularly for cattle, that section of the genus known as Mangel Wurzel. It does not require extra deep preparation of the soil, as for the Parsnip and Carrot; it produces handsomely upon good Corn soil, although a dressing of well-rotted manure, or a sprinkle of superphosphate, is not thrown away upon it anywhere; it may be sown as early as the earth will work mellow, or as late as June 1st, with good prospect of a crop in either case; it germinates without delay, and makes a visible row about as soon as the White Turnip does under the most favorable conditions; once up, it withstands dry weather bravely; it has no special insect or other enemies, a stray caterpillar now and then, or a Yellow bird, at the worst. So much for its merits growing.

Harvested and properly stored, it keeps until the succeeding June; it is relished by all farm stock. While, perhaps, not so nutritious as some other roots, it is a valuable adjunct in winter feeding; it imparts no bad taste to milk or butter.

The land for Mangels is to be prepared precisely as for Ruta Bagas, except that the ridges and rows may be twenty-four to thirty inches apart; I make them twenty-eight. What has been written above as to the cultivation of Ruta Bagas applies to this crop as well, except that the distance apart of the plants in the rows should average about thirteen inches.

Success in raising all root crops depends, in some measure, upon proper

thinning. A careful man, with a quick eye and nimble fingers, will single out the best plant of a group and remove most of the others with the hoe, while a blunderer is pulling half as many with the best one of the group amongst them. No attempt should be made to make the distances uniformly equal; but an average distance should be aimed at, with an eye at the same time to retaining the best plants. The temptation is to leave too close a stand. It seems a pity to sacrifice a fine, thrifty plant! Yet it must be done ruthlessly when occasion demands it.

I have raised the Long Red Mangels, both improved and unimproved, but, while the former is much better than the latter, in size and form, neither possesses the firmness of Carter's Improved Orange Globe. I like the shape of the latter better, also, not only because it tends better to retain the good qualities of the root, but because it reduces the work of harvesting one-half. I top the roots standing, as already described; then one man goes along, and with a slight shove of his foot turns them out of the ground. Two follow with baskets and pick them up. But I would not say a word against any member of the Beet family. I have raised Bassano, Long Blood Red, Dewing's Turnip, &c., &c., and had good crops.

If I have written enthusiastically of all the roots, it is because I think each good in its place. The profit in raising them is not that one may produce them at an expense of ten cents per bushel and sell them in market for twenty, but that they may be disposed of in the home market to the animals of the farm. They will pay for them in bright eyes, smooth coats, healthy lungs and bowels, and all that these imply.

As farmers, we of America, have fought too shy of the root crops, deeming their culture "puttering work;" but, while some enjoy the slap-dash style of farming, which swings over a large extent of ground, a growing number are content to do things in a more careful manner. Probably the latter class will prosper as well as the former. They will find a part of their profit in planting roots. Nothing can take their place as food for stock. Ensilage, faugh!—ROBERT J. FLEMING, *Greece, N. Y.*

A GLIMPSE OF COLORADO.



ET us spend a day in the hills! Colorado is belted by mountain and plain into sections where the people differ as the land. The mountains, bright and chill, are vocal with unsensuous laughter, but the plains are warm, swept

by gusts, shaded by low-hung clouds out of which leap quick lightnings, and illumined by glowing, golden moons that fill the veins with fire.

If you consent to my guardianship, we will not seek the spots whose wild attractions bring pilgrims from the steppes of Russia and the vales of France. Invaded now by the excursion train and the picnic basket, they have lost the charm of solitude. Neither need we climb great summits white with everlasting snow, nor explore gloomy canons whose shivered walls rise thousands of feet. We will go on foot, ignoring the dubious aid of the broncho, breathe the fresh mountain air, and seek only the beautiful.

It is June, the month that blends the riches of spring and summer. The leaves are dark and glossy, not yet preyed upon by the dreaded locust, the low hills are a soft gray green with wild grasses, where they are not covered by a thousand flowers. The sun, round and glorious, rides above the eastern ridge of the narrow valley, and the meadow lark's clear trill delights us as we start out. When they heard that simple song on the plains, how glad they were, the pioneers. It remains to them forever associated with the fragrance and joy of mornings broadening over a new land. At regular distances apart, like forts, are set huge tower-like masses of red sandstone. They glow hotly in the yellow glare of the sun, but you may find cool resting places on their many broad shelves, or in curious grottoes where tufts of the feathery gramma maintain themselves, or bushes of wild

Mulberry with its thick dark leaves, or ruby clusters of the poison Currant. There will be no lack of company, for scores of martins have built in the holes that honeycomb the rock, inquisitive chipmonks will whisk out to take a look at you, and the wild doves, the doves that SOLOMON heard, breathe the primal love-song close beside you. When I first heard it sobbing through the hills like the soul of tenderness and pain, it seemed the voice of some beautiful exiled spirit mourning its resigned despair. It has a romance, an intangible loneliness and sorrow, which even rough natures own, and which probably secured the bird the honor of a superstition. Its trim, full-breasted walk and large, soft eyes make it a little gray beauty.

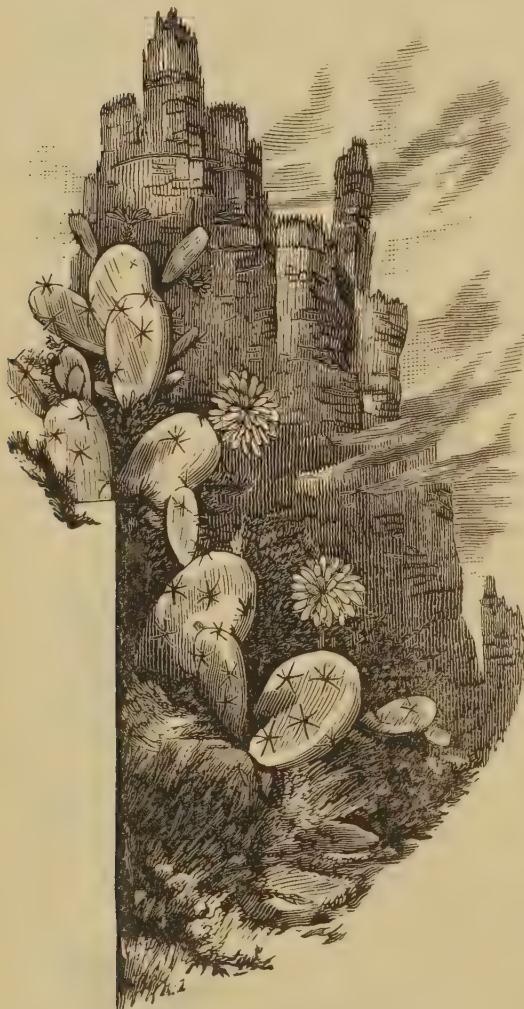
We pass steep gulches which were lately torrents, but will soon be dry, now moistened by threads of water shadowed by Willows or Plum shrubs, and grow breathless climbing the first abrupt stone-covered masses, which are like advance guards of the host behind. Beneath a Pine we halt and look downward. Over the ridges show the plains, played on by light and shade, till they seem mobile and transparent. The streams are indicated by lines of trees, dots of farm houses and ponds that flash out to the sun. The tint of the horizon is indescribable, deepening by silvery tones to the fervid azure above us. The nearer ridges are in shadow, but everywhere the green of shrubs or gray of stone is varied by hills, banks and plateaux of red earth, matching the color of the rocks. The first Spaniards noting this peculiarity with quick southern eyes, gave their strange discovery its name, Colorado, "red." The hue is omnipresent in the soil, the mountains, the streams that often run sanguinary as the earth-stained river of Adonis,



INDIAN PINK.
CASTILLEIA COCCINEA.

" Whose annual wound in Lebanon allured
The Syrian damsels to lament his fate."

In the skies of morn and eve, on the petals of flowers like the carmine Lupin and the Indian Pink, which blooming best on scorched hillsides, draws from the burning sunlight a velvet glory of



CASTELLATED ROCKS OF RED SANDSTONE WITH
OPUNTIA (CACTUS,) IN THE FOREGROUND.

crimson and vermillion. Contrast is the force of border life. The glare of light that no art can render, the combinations that violate all tradition, a fall of golden bloom down a scarlet bank, a field of rose and amethyst, blue enchanting lakes that poison all growth, and the blankness of miles without a tint to relieve the universal gray.

I was prowling among the foot-hills one afternoon, exploring a gulch sunken far below the general level. I passed under a natural bridge, sketched a castellated rock, and came upon a sharp corner of granite stained a dark purple by some mineral. Twenty or thirty feet

the walls went up on each side, polished like glass. Between them a rill of water slid down, settling near the sandy floor in a perfectly clear green pool. Bits of rock had fallen into it and there decomposed, looking exactly like clots of blood. The sand was sprinkled with the same ominous tint, and the sky was almost excluded by a blackening Cedar above. I am not nervous, but I climbed out of that ravine. It was fit for an assassination. I knew the old road, near which it lay, had witnessed many strange deaths, and the post mortem suggestions were not agreeable. In one of these rocky caverns a mischievous boy frightened his companions nearly to death, one day. We laugh, but there is a difference between courage at a distance and at hand. I heard a man say he could cheerfully shake hands with a ghost, and I wish some enterprising spirit had tried him.



COLUMBINE. *AQUILEGIA CÆRULEA.*

Along our trail are holes "gophered" into the hillsides in the search for mineral. What inch of the Rocky Mountains has not been trodden by the eager feet of the prospector?

This is the season when all wild flowers abound, charming even the teamster into bringing down bunches of them to sweetheart or wife. Mountain flowers are far more delicate than the dazzling bloom

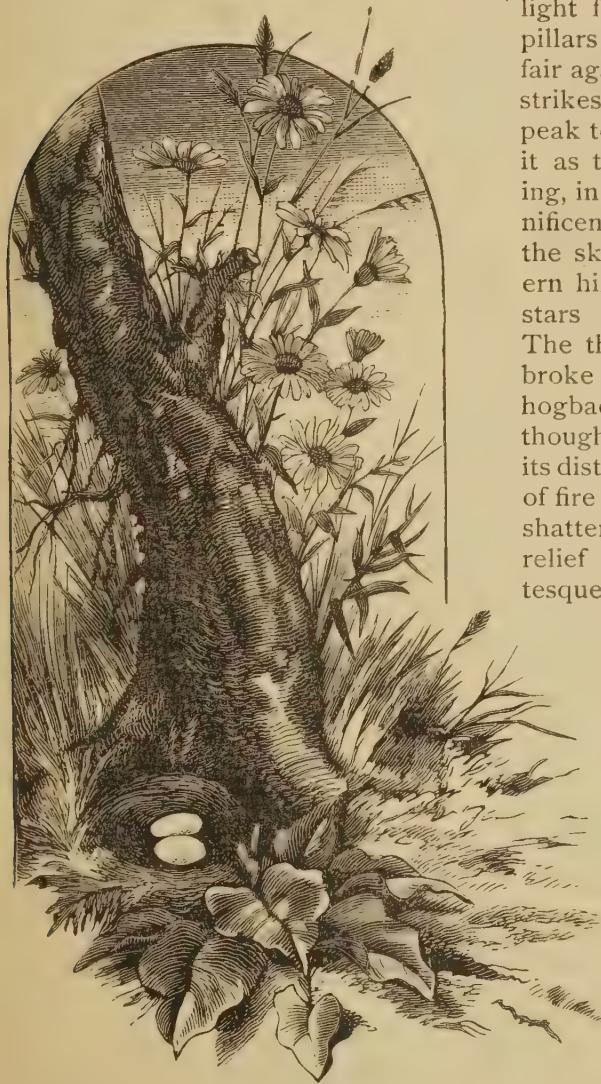
that spreads over the prairies. Every slope, dale and damp hollow has its own peculiar growth. Sheltered by a favorable position, I have found stray blossoms as early as February, and as late as November. After a protracted drouth, old varieties often vanish entirely and new ones take their place. Thousands yearly shoot, bloom and fade without a name. Anemones, Irises, Lilies, Shooting Stars, Blue-bells, Roses, Cacti, Aconite, Orchids, Violets of all colors, alpine plants that cling to the naked rock, numberless beauties crowd thick among Ferns in open glades or hollow vales, never in the woods, for even grass will not grow beneath the sad shade of the Pines. Transplanted they are generally unable to endure the sunshine of a lower altitude. Their loveliness lacks the charm of association. Usage has given

them no tender meanings, like Pansy or Forget-me-not, nor legend accounting for their fanciful shapes. It seems profane to give the royal Columbine as the symbol of folly, as the books insist. But poetic immortalization may come with time. "*Quien sabe.*"

How often has the homesick emigrant turned from the rainbow splendor of unfamiliar flowers to greet with joy meek-eyed Daisies and Harebells, nestling in some rocky gorge, and seeming to whisper that home feeling for the new land would come at last. A well known flower is something like a friend in a far country.

It is grand to watch from the heights a storm gather. The air grows heavy with perfume from Pine needles, Raspberries, and all fragrant things in the woods. Over part of the plain you will see sunlight falling brightly, in another moving pillars of rain, and beyond the skies are fair again. Then you note the cloud that strikes the long range and sweeps from peak to peak, lightning glancing through it as the thunders roll. One May evening, in the foothills, I witnessed a magnificent electric display. North and east the sky was sable cloud, over the western hills it was measurably serene, a few stars twinkling through light vapors. The thunder storm passed over us and broke upon the plain below. Above the hogback lightning glared incessantly, though the murmuring thunder proved its distance. Spears, wreaths and columns of fire blazed above the twisted trees and shattered rocks, bringing out in strange relief a thousand shapeless clouds, grotesque monsters writhing in a flood of shifting flame. The effect was singular. Here, all was silent except for that low rumble of the tempest or the twitter of the birds startled from sleep by the unusual brilliancy. There, all living creatures must have sought shelter, streams were swollen and trees bent before the blast. I learned afterward that Denver was half inundated that night, and some herders killed out on the plains.

The mountain climate ranks among the curiosities of the continent. It is everything you don't expect and don't appreciate. The



A DOVE'S NEST.

first winter was so mild that the settlers basked in the warm sunlight on New Year's day, and wrote unutterable nonsense about the "Italian clime." They were afterwards undeceived by snow five feet deep in May, by terrible winds that pierced scanty clothing and ill-joined cabins, that froze cattle on the hillsides, made escape impossible, and produced a "famine year." They scanned the earth for something that might be eaten, and, like the starving animals, seized upon the Cactus, which they peeled and boiled for food which hastened many of them out of their misery. Besieged they were by the powers of hunger, cold and storm, and death was the only avenue of escape. Ah, my friend, you talk of the hardness of men, but for the most utter inflexibility you must turn to nature.—MARION MUIR.

GARDENING FOR PLEASURE.

In order that one may fully appreciate the advantages of a garden it is necessary to be deprived of one for a year or two, and be subjected to the necessity of chasing the wagon of the itinerant vegetable dealer, purchasing stale produce in the village markets, or depending upon the capricious generosity of your more fortunate neighbors, whose liberality perhaps induces them to offer you an abundance of something which you do not in the least care for, while the Cucumbers nestle lovingly among the green leaves and golden blossoms before your longing gaze, and the Pea vines are so loaded with plump pods that you forget all about the tenth commandment, to the great detriment of your morals; therefore you come to the sad conclusion that even six thousand years have failed to divest the garden, especially that of your neighbor, of its danger to the covetous soul. Whether at the same time the earth was cursed man was given a love for the labor to which he was condemned, as a sort of compensation, I do not know; but it is a fact that there is a fascination about gardening which even repeated failures do not abate or extinguish. If there is one thing of which a man is insufferably proud it is a "good garden," and perhaps it is not very wonderful considering the difficulties with which the "tiller of the soil" in this part of the globe has to contend. A well arranged and well kept garden

represents a considerable outlay of skill, patience and manual labor. It may be that rightly considered the garden is a "means of grace," for it tends to the cultivation, among other things, of the christian virtues. Faith is needed at the very outset when you have planted your seeds and await the appearance of the tiny shoots from which you expect so much; and patience will be required before all the weeds which also appear are eradicated from your garden; and when the striped bug and his ill-favored confrere, the three-cornered beetle which carries swift and sure destruction to the Cucumber and Squash vines, come to visit your domain, you will do well to add resignation to your other virtues. Self denial is usually in order after the novelty of gardening has disappeared and the weeds have not, for if you are inclined to treat yourself to a little indulgence in the matter of rest, you will find that if you have been idle, the Mustard, Pigweed and Pusley have not, but have sprung up in such profusion that you will be troubled to find your cherished plants, even though you seek them with tears. Like most desirable things in this world, the garden has its price, which once paid, however, is not regretted, for the satisfaction one feels in the contest with weeds as they fall beneath the hoe is almost enough reward in itself. No doubt there is a deal of combativeness and destructiveness in our nature, which, when legitimately directed, as against the weeds and insects in our garden, is no discredit to humanity, and is, to a great extent, the basis of the success which has attended the career of many of those whom the world calls "great and good." It is when we take our moral hoe and proceed to cut down the weeds and exterminate imaginary insects in the garden of our neighbor that we find our energies misdirected and our faculties perverted. While there is an amount of satisfaction in the labor of gardening itself, there is a great deal of enjoyment in looking at a nicely arranged, neatly kept garden, with its clean walks and regular beds and rows of thrifty vegetables, which speak of *peas* and plenty.

Then, aside from the pleasure which really attends labor and that derived from the contemplation of your success, your garden has been a constant source of gratification to your family and yourself,

and, if you are not selfish, to some of your less favored friends, from the time when you walk triumphantly into the house with your first bunch of crisp and juicy Radishes until the heavy frosts of late autumn remind you that even the Cabbage must have a place to lay its head.—L.

◆◆◆
VARIEGATED ROSE GERANIUM.

One of the prettiest and most satisfactory house plants is the variegated Rose-scented Geranium, from the fact that it requires very little training to grow in fine shape, has a delightful odor, and presents a very attractive appearance with its silver-edged leaves, many of which brighten up with a charming shade of pink when the plant is placed under a proper light. One is often obliged to discard a plant which has endeared itself by its beauty, its associations or even by the lapse of time, causing one to regard it somewhat in the light of an old friend, on account of its having attained such a great size, but this variety of Geranium, or, more properly speaking, Pelargonium, may be kept for many years if treated to a little judicious pruning, as it is not so rampant a grower as its parent, the old Rose Geranium. It makes a very handsome specimen when grown in tree-form, which is easily managed by procuring a straight cutting, and pinching out the top after it has attained a height of about six inches. Growth at the top being stopped several side branches are produced which, after attaining the desired length, should in their turn be nipped, and so on *ad infinitum*, until you have a beautiful miniature tree with a dense and symmetrical head of fragrant leaves. I have now a Geranium of this variety in my possession which measures only about eight inches in height from the top of the pot in which it is grown, and has a stem or trunk about the size of an ordinary lead pencil, possibly a trifle larger, and yet is from three to five years of age, and has had but one severe cutting back during the time. After the branches become numerous, you can occasionally find one in the center of the plant which can be removed without injuring the form of the tree, thereby increasing your own stock or gratifying some friend less favored than yourself with a cutting of this desirable Geranium, which I rarely see in the collections of amateur florists.—L.

GARDEN CHAT.

The rain silvers the windows and nothing is to be done in border or greenhouse. I shall summon company good for such a day, the confreres of the *MONTHLY*, for that kind of a chat in which, alas, one does all the talking. These dull days are good times to study about gardening, always pencil in hand for taking notes. In that quaint writing table yonder is a drawer full of notes on gardening from all sorts of sources, horticultural transactions, journals and cyclopedias, and I wouldn't take a prize Orchid in change for them, not even that magnificent one which Mr. AMES, of Easton, the Orchid fancier, gave \$350 for. That is partly because I don't crave Orchids anyhow. You will find a mixed collection of garden reading on that Elizabethian, Walnut-wood table which is over two hundred years old. Quite in keeping with the table is a quaint, sagacious little book on orchards, dated 1713, and the old *Gardener's Calendar*, of 1820, will teach you more practical wisdom than nine-tenths of the hundred horticultural books of the year's reading. There is the thick octavo, which Mr. ALFRED SMEE, F. R. S., well born and learned, wrote about his Surrey garden of twelve acres, crowded with choice fruits and flowers, where he fruits three hundred varieties of Pears and more than as many Roses, fair with river scenes and stately avenues and hidden bowers, with its alpine garden, its rosery, its nut-tree walk, its American garden, its herb-ery, its tropic quarter and garden of succulents, with more that is curious and experimental than I can even hint at, all illustrated with charming views drawn by his friends, of favorite nooks in this well beloved resort. And there's an *English Cyclopedie of Gardening*, so large that one is sure of its being always fresh, for before he is half way to the end he must have forgotten the beginning. But how thorough it is on every point one wants to know.

Well chosen books on gardening are the rarest of all in town libraries where they should always be to raise the dormant interest in the most congenial of all pursuits. Nothing is better as a pioneer work than a set of illustrated garden monthlies, whose aid is welcome to the uncertain amateur, and whose plates take

every eye, and waken the children specially to ambitions in the way of gardening. I have been trying to give up my set of VICK'S MONTHLY to the parish library, but the effort is too much for me. Those dear volumes in their fresh green and gold, fair as the day they came to me, are applied to in so many garden emergencies, and are so good to pick up in odd minutes, how can I give them up? Beside, Mr. VICK, the founder, himself sent them to me, never knowing the pleasure which he sent with them in a few friendly, appreciative words, and they are treasured in memory of that gentle, generous giver. How much pleasure he contrived to sow broadcast in his life, in seeds, flowers and pages, sent when he guessed it was not convenient to send for them, and indulgencies were limited. The turf is green above his rest, and his monument befitting, but north, south, east and west gardens are blooming that keep his memory fresh, and flowers are ceaselessly opening in his honor. Many a genius, many a successful politician has cause to envy such wide and blameless fame as that of JAMES VICK, whose steady work in raising and quickening the popular taste for flowers was wider and more a public benefit than he was credited with. No matter; the work was fine both in its ends and in the spirit in which it was done. There are few enough of such men, and though I never saw him, the books his hands despatched are too much valued to be given up. Still, I hope other people may be able to reach the heroic virtue of giving away their magazines, though I can't. They are specially welcome to persons of failing sight, who enjoy the colored plates. The copies taken to a friend in a hospital go from bed to bed through the ward with welcome and delight.

Garden people always seem like pleasant people, and I think of them as such. PENELOPE PEPPER, if you undergo any closer scrutiny in your garden than I do in mine, you will be sure to have a tall, quick-growing screen of White Willow started before the season is over. The whole neighborhood kept watch on my comings and short-comings, last year. Men in shirt sleeves, uninvited, took walks through our garden Sunday mornings, inspected the Strawberries and Celery and counted the rows of Peas.

When I chose to spade up a yard of flower border, for exercise, after a day at the writing table, a neighbor would tell me, with grave disapproval, as if I had committed an indecorum, "I ought to have a boy to do that." His wife would no more put her hand to a spade than she would swear, but as she weighs about two hundred pounds and nearly died of apoplexy lately, perhaps a little spade exercise would be unwholesome for her. What if they did criticise, in frosty New England fashion, intolerant of anything contrary to its own customs. They might have talked at somebody else who would have minded it. I'm very happy, this spring, that two or three will raise Celery who never did it before, and there is a movement toward having hot-beds, and, best of all, the boys in the village are getting waked up to think they can have gardens too. Last summer, they moped and mooned about, with hardly energy enough to play, wore the fences sitting on them, and nearly killed themselves going in swimming three times a day, for want of anything better to do. Now GALE and TERRY, JOYCE and HAMILTON have gone into partnerships to see who can have the best gardens down on the flats. Even the colored boy who heads the school cadets came for some seed for his home garden, and there are Tomatoes coming up in boxes over nearly every kitchen stove in town. The idea of getting ahead of other people has a good deal to do with this garden fever, but I hope the boys will come to love gardening for its own sake.

Dear PENELOPE, wear your old gown in your own garden, and let the boarders stare from the next piazza, if they want to. I know when I should turn in for good company, if you can talk with as pungent spirit as you can write. Let me tell you of two ladies who have done more in downright hard gardening work than ever you or I have yet. One was the wife of a judge in Western New York, well placed and used to an easy life; but at his death she found herself left with a handsome home, silver table service, and elegant wardrobe, but not income enough to put bread on the plates. She tried to let her house for enough to live on, but couldn't, and she liked to keep her home with all its associations. It had a fine garden of fruit, for which the region is

famous—Peaches, Berries and Pears. The widow was fond of the open air, and knew how her husband had managed the fruit. So she and her sister settled that they would live together, and live by fruit-raising. I think they had a few lessons at first, but the end is, they live charmingly, raise a profusion of the finest dessert fruit, Peaches, Grapes and Pears, making a snug income, and two healthier, more contented women you will hardly find. "I suppose they have a man come to do the work," I said to the friend who was telling of them. "Indeed, no," she said, "they do every particle of it themselves, those two refined women, and THOMAS BEECHER, their minister, says there is no sunnier, more cheery house to visit in his parish."

She was a clever physician telling the story and weeding the Strawberry beds with me, for fun, in one of her rare vacations, a woman bred of three generations of regular doctors, of Mayflower stock. So I asked her, "Doctor, is it true that spading a border, or pushing a wheelbarrow, is injurious to women? Some one writes that they never should do either."

"No," returned the educated woman, with intense contempt. "It would be better if they would all dig, wheel and hoe out of doors, till they found what their muscles are good for. We wouldn't have so many sick ones on our hands then, and we would occasionally have the pleasure of seeing a healthy, muscular woman. You tell them they can do all they feel disposed to do in a garden without fear of consequences, and the more they do the better it will be for them."

Of course, as there are women who can't reach up to draw a curtain down or lift a child without strain, it will not answer for them to dig extensively at first; but a springy frame, a neat boot, and a sharp, light spade being near a bit of flower bed that needs digging, I don't see why one should wait for a man or boy to do the work.

Mr. REXFORD's mention of *Olea fragrans* in the MONTHLY for 1878, was so tempting that I sent forthwith for the plant, and feel obliged to him for introducing it to me. The foliage is firm and glossy as that of a Fig or Rubber tree, and the incomparable fragrance, or

rather, the aroma, for it seems too subtle to call an odor a delightful fragrance which is distinct but not oppressive, both rich and refreshing, marks a plant at once for prime favor.

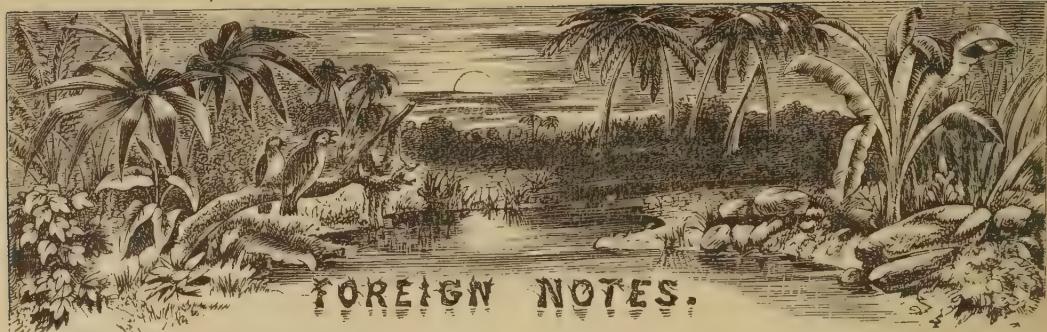
MARION MUIR's sketch of Colorado spring flowers in the April number is so well considered we all hope she will give pictures of the native flowers through the year.

It would be interesting if correspondents would mention the fine native flowers of their neighborhoods, and thus might be revealed the whereabouts of some shy beauties. Also, let those who have old garden favorites describe them, for many have so completely gone out of cultivation east that florists must find them in gardens of the Ohio states, where settlers carried them forty or fifty years ago. Around Boston, with all its high floriculture, the spicy flowering Currant is unknown, though one of the hardiest, as it is the sweetest, of shrubs. There is an old white climbing Rose one sees over country porches occasionally, though gone so far out of memory that florists have assured me there is no such thing in existence. Where could one find a plant of Lemon Thyme, or the scarcer Orange Thyme, or a dark brown Marigold, such as I remember? Where does one find a bush of Snowberry, or Snowdrop, with clusters of wax-white berries, one of the loveliest things grown, to my thinking. I have searched catalogues for it in vain, and my garden is not complete without it. Let us compare recollections and find the vanished favorites, if we can.

—SUSAN POWER.

INTERESTING EXPERIENCES.

Your MAGAZINE is a most delightful visitor, coming as it does every month with its pleasant little budget of news from field and garden from every part of the country. I am so glad you have so many able correspondents, and I, with an army of other flower-lovers, enjoy their communications more than we can tell. It is far more interesting than the last novel to read of the varied experiences of those who have given time and labor to these ever welcome beauties of nature. If they are successful we like to know how they succeeded, and if they fail it may be of service to us to become acquainted with the cause of failure.—F. W. R., Chicago, Ill.



FOREIGN NOTES.

NOTES.

Among other "Notes," the following are sent by VERONICA to *The Garden*: "Common Wood Moss may be utilized for Moss culture in several ways. By using a few nodules of bone instead of crocks for drainage, and putting any quick-growing decorative plants in chopped Wood Moss, good results are attainable. The great essential to success is to ram in the Moss quite tightly, otherwise it holds too much water, for flowering plants especially. Nearly all dwarf-growing foliage plants, Ferns and Lycopods grow luxuriantly in common Wood Moss, and for more robust and hungry-rooted things it may be fertilized by a sprinkling early of guano, fine bone dust and soot, all carefully mixed up together, or by the merest pinch of Clay's fertilizer, or any other good and handy stimulant. I would back common Hypnum, or Wood Moss, so treated against any fertilizing Moss whatever."

Of Irish gardens, he writes: "Well stocked gardens of old-fashioned flowers are far more common here than in England. A bed of *Narcissus cernuus*, or of *N. tortuosus*, bearing a thousand open silvery bells is a sight not often seen, and once seen can never be forgotten. Here is a sketch of such a sight by a friend: 'When exploring a very old garden not a hundred miles from here, a few days ago, I came suddenly face to face with an oblong bed on a sunny slope, some three yards to four yards long. Its center consisted of a belt about two feet wide of white Daffodils—a solid mass of flowers. There could not have been fewer than a thousand open at the same time, besides buds in all stages. This was bordered on each side with Blue Grape Hyacinths, about eighteen inches wide, a solid mass of beautiful blue—a contrast positively

enchanting. I never before saw either one or the other in such profusion. That bed, I heard, had not been disturbed in the memory of the oldest inhabitant. White Daffodils abound in that garden here, there and everywhere—in the grass, amongst the shrubs, in the borders, &c. I noticed, however, that they were stronger in every case where the ground had been bare in the summer, and where, of course, their bulbs would be better ripened.'

ONIONS NOT THINNED.

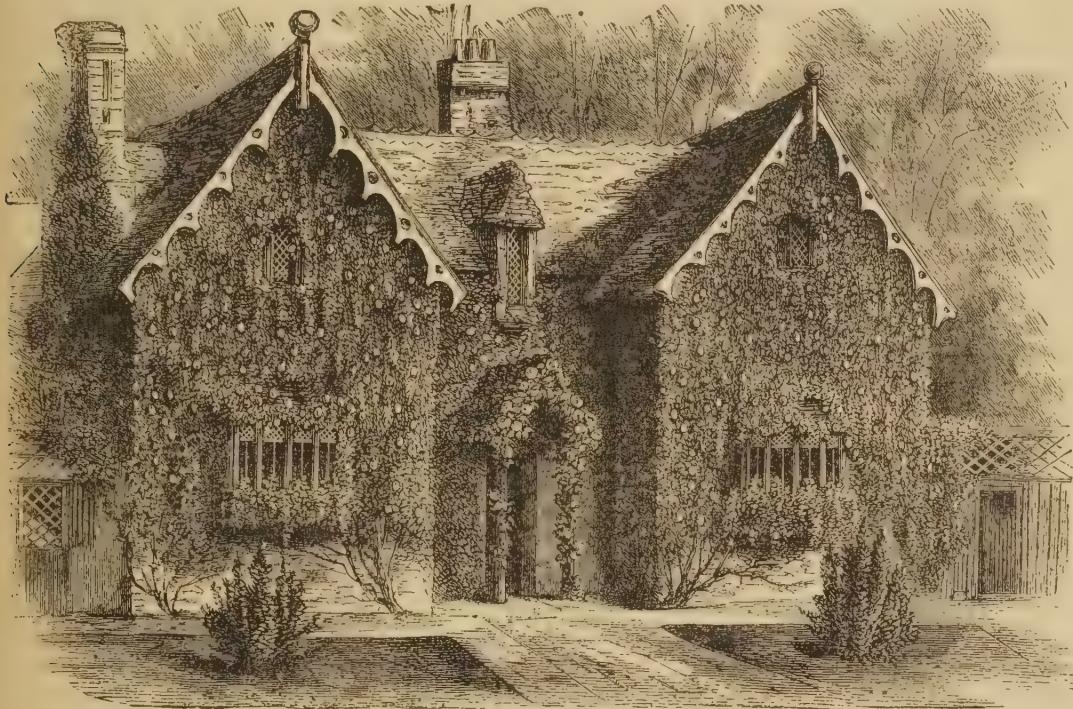
Some Onion-growers make it a part of their annual work to begin thinning their Onions as soon as they are a few inches high, and do so occasionally until the plants are from six inches to a foot apart. If the soil and position are good this is a sure way to obtain fine bulbs, large and well-shaped; but further than this thin-growing has no advantage. An excessive weight of crop is not secured in this way, and large bulbs never keep so long sound as small and medium-sized ones. Of this I have had many proofs, and any one may satisfy himself on this point. For exhibition the bulbs must have plenty of space to develop, and when this is stated the whole of the advantage of much thinning and thin growing has been named.

Unthinned crops are by far the most profitable. The seeds of these are sown thinly to begin with. There is no labor spent in thinning. There are no hundreds or thousands of young plants pulled up and thrown away, but all are allowed to grow and form bulbs. Some of these, where the plants are thin, may be a few inches apart, and form bulbs ten ounces, twelve ounces or fourteen ounces in weight, each; others may be closer, and the bulbs may be so crowded together

that the majority of them may not become larger than a hen's egg; but what size more useful than this could any one desire to keep until winter and on throughout the spring? When unthinned the weight of crop and quantity of bulbs secured from even the smallest piece of ground is astonishing, and as I have practiced this system for some years against others, I can thoroughly recommend non-thinning as the best way of securing a large quantity of the most useful bulbs.

—J. MUIR, in *Journal of Horticulture*.

nersbury occurs the double-fronted residence represented in the figure. The growth of *Passiflora cærulea* that clothes the front is of some years' duration and a credit to all concerned in its management. That the plant flowers freely need not be said, for when our sketch was made it was literally covered with ripe fruits of the most beautiful Apricot color. It is known in the district as 'the house of the golden eggs,' and it justifies the name while vindicating the plant that gives it so much beauty."



THE HOUSE OF THE GOLDEN EGGS.

THE BLUE PASSION FLOWER.

One of the finest exhibits of the Blue Passion Flower, *Passiflora cærulea*, is represented in a late number of the *Gardeners' Magazine*, and here reproduced, with the following remarks in reference to it by that journal: "Good examples of the Blue Passion Flower are decidedly scarce, and we must make much of them when they come in our way. Occasionally we see an old-fashioned country cottage richly clothed with this fine plant, but, for reasons we do not pretend to understand, it is not in great favor as a wall plant. However, in all the southern counties, and in all the suburbs of London, thriving examples may be found, and one such is here figured from a sketch made in the autumn of the past year. On the high road between Chiswick and Gun-

WINTER GALES IN ENGLAND.

As proof of the great force of the gales in December, English journals present notices of the sales of timber on the estates of the Duke of Newcastle. The list of timber included 3,286 trees that had been uprooted. Among these were between six and seven hundred Oaks, many of noble dimensions. No previous storm has ever proved so destructive in the district.

FRUIT IN ENGLAND.

The prospect of a fine fruit crop through England, which was entertained early in the season, was quite destroyed by the April frosts. Apples, Pears, Plums, Cherries and Red and Black Currants have all suffered severely. It is reported that generally but a small fraction of a full crop will remain.

IMPATIENS SULTANI.

A correspondent of *The Garden* says, "I saw this Balsam in a London nursery, last July, and was told it was constantly in bloom, a statement which induced me to buy a few plants of it, and I must say they have quite exceeded my expectations in this respect. They have never ceased flowering since the day they came here, and now they are going on more briskly than ever. Cuttings of this Balsam root as freely as those of a Coleus. It has a free branching habit, and its flowers, which are produced in profusion, are of the prettiest carmine color imaginable. It succeeds admirably in a stove or intermediate house in winter, and in a conservatory in summer."

Most of our readers will probably remember that this plant was noticed on page 81 of this volume, and there the statement of a French journal was given that it thrived planted out in the open ground in France, though preferring a situation slightly shaded. We have not yet heard of its being tested in this country.

THE CHEMIST IN THE GARDEN.

The *Revue Horticole* refers to a notice published last year in its pages of the results obtained by M. PONLIN, who, by means of some chemical substance applied to plants of single Narcissus, succeeded in producing double varieties. It states that this was thought by some to be a transient effect, but, on the contrary, it is otherwise, and that the flowers this year are double, as they were last year. "There is, perhaps," it remarks, "in this fact a step towards important physiological discoveries which will find numerous applications in horticulture."

DAFFODILS.

The *Journal of Horticulture* notes the increasing employment of these flowers, as follows: "As an example of the rapidly increasing demand for Daffodils and their relatives, it may be noted that one grower has, within a few days, lately sent to market no less a number of the Poet's Narcissus than one hundred dozen bunches, each of which contained twelve flowers, or a total of 14,400 flowers. The variety ornatus is most in demand, and at the recent Crystal Palace Show comparatively small bunches were eagerly purchased at 9d or 1s each."

FORESTS IN SYRIA.

Our Consul at Beirut says, in a recent report, "In Syria one cannot say that there is such a thing as a forest. There are some small Oak groves in the Lebanon. The timber of these trees is used for making charcoal. In some parts of the mountains there were, some years ago, groves and woods of Oak and Pine-trees which have been cut down. Even the famous Cedar forests of the Lebanon is nothing more than a group of trees, and most of them have been chipped and scored in many ways. The local authorities are now protecting what is left of these old trees; an enclosure has lately been built around the remaining Cedars, and people are no longer allowed to disfigure or destroy them. Nor are the grounds in the vicinity of these trees permitted to be used as pasture. Some years ago a number of the largest Cedars of this celebrated spot were cut down and burned for pitch."

RED SPIDER.

The *Journal of Horticulture* gives the following recipe for red spider, remarking that it has been sent "by an experienced gardener who has proved the value of the preparation: 'Two pounds yellow sulphur, two pounds lumps of lime; boil it twenty minutes in ten quarts of water, keep it well stirred when boiling, let it stand till cold, then bottle and cork down; put one wine-glassful to an ordinary size pail of water. The best time is to syringe in the evening, and in a day or two the plants, &c., may be syringed with clean water. One dressing is generally sufficient, but should be repeated if required.' "

CALLA PLANTED OUT.

A writer in *The Garden* says of Calla. *Æthiopica*: "Plants of it in pots produce fairly good blooms and a goodly number of them, but nothing like the results obtained from plants planted out in the bed of a greenhouse or conservatory. Here the large, handsome leaves of plants thus treated are most effective at all times, and the blooms, which are very large, are of great substance, and are thrown up in the utmost profusion. A rich soil and abundance of moisture at the root are main points in its culture."



THE GREEN CABBAGE WORM.

In the May number of the MAGAZINE I find a remedy for Cabbage worm, which is much more easily done, cheaper, and perhaps as effectual as mine. I will, however, tell you how I raise Cabbage, not by killing the worm, but feeding it. Three years ago, my gardener made a mistake by sowing Flat Dutch Cabbage seed supposing them to be Early York, and about two weeks later sowed the Early York for Flat Dutch. In due time my Early York (Flat Dutch,) plants were transplanted in rows four feet apart. In about three weeks my Flat Dutch (Early York,) plants were set, one row between each row of the first setting, making the Cabbage two feet apart between the rows and two feet apart in the rows; every alternate plant being an Early York.

The moth of the green worm makes its appearance here between the first and middle of June, and by that time the first setting of plants had made a splendid growth, so much so that we could detect the mistake in kind of Cabbage. We also discovered that the moth did not light on the first setting, but confined itself to the younger plants. Following the suggestion, I kept young plants growing in the patch the entire season, and never raised better Cabbage, not a worm touched them. For three years I have done the same way with the same result. That is, I set out my late Cabbage early, and about the time for the green worm set out young plants for them to eat, and continue to do so all summer.—R. SMITH, Milford, Ill.

The remedy in the May number, referred to above, is bran, the use of which is described on page 140. We have heard from so many of our readers who have successfully used bran to destroy the green Cabbage worm that we can almost conclude it to be a sure destroyer of this pest. If this is so, it is to be preferred to the method described above, since the former, if generally employed, would in time nearly exterminate the insect, while feeding them would continue them always in full force. Experiments made by the Entomologist of the Department of Agriculture, and by others, show that the common green Cabbage worm, *Pieris rapæ*, may be destroyed by the use of Pyrethrum or Persian Insect Powder mixed in water in the proportion of two hundred grains of the powder to two

gallons of water, sprinkled on the plants. The dry powder dusted on the plants is also effectual. This substance is not so effectual on other species of worms that infest the Cabbage in southern localities.

VINE INSECTS.

No destruction of vegetable growth here, caused by unfavorable weather, frosts, etc., can compare with that which threatens us in the form of animal life infesting our vines. In *One Woman's Trials*, I wrote of a very curious aphis, large, and almost transparent, which took off the leaves of Ampelopsis in August. Early this spring I noticed that thickly along the brown stems were a kind of scale insect, and yet not that, being a mammoth affair, and very convex in form and brown in color, filled underneath and oozing at the sides with what looked like Cotton; but on removing the—thing—this substance strings out like glue, is very tenacious and offensive to handle. And alas! and alack! they are in solid rows at this writing on a last year's Grape vine, and are nearly covered over with the white secretion. Were the insects of last summer the outgrowth?—M. B. B., Xenia, Ohio.

The Grape vine bark-louse has never proved very injurious to our open air vines, and it is seldom that any notice is taken of it. Should it happen, however, in a particular case that the insects should become numerous, they are capable of greatly weakening the vines. In the excellent treatise, *Insects Injurious to Fruits*, by WM. SAUNDERS, which was noticed in our pages some time since, and recommended to our readers, and which we now take occasion to call attention to again as a most useful and practical work for every one who raises fruit, the following description and advice is given: "During the month of June there are sometimes found on the branches of the Grape vine brown, hemispherical scales, from under one end of which there protrudes a cotton-like substance, which increases in size until the beginning of July, by which time it has become a mass about four times as large

as the scale. This cottony matter contains the eggs of the insect, and very soon there issues from it minute, oval, yellowish-white lice, which distribute themselves over the branches to which they attach themselves and shortly become stationary, sucking the juices. This species is believed to be the same as the European scale-insect of the vine. The scales are not usually found in any great abundance, and may be readily scraped off with a knife or other suitable instrument, which should be done before the young lice escape." Vines cultivated are much more infested by this pest, and good Grape-growers attack them systematically by looking over the vines carefully at the season of the year when they are destitute of foliage, and removing with a stick or a knife all the insects to be found, and afterwards brushing them with soft-soap and water, and at the same time removing as much as possible of the old loose bark; after this they are white-washed, and then another wash given of soot and sulphur. But kerosene oil has proved to be the surest insecticide, and a good way to use it for these scale insects and mealy bugs is to boil a quart of soft soap with two gallons of milk, and when cool add one gallon of kerosene. This mixture, when used, to be diluted with twenty times its bulk of water. In spring, before the leaves start, take a brush and paint the vines all over with this liquid, and it will free them from insect life and eggs. The aphis mentioned as injuring the leaves of the *Am-pelopsis* may be destroyed by syringing the foliage with the same mixture.

A BEGINNER'S QUESTIONS.

Can *Hydrangea Otaksa* be bedded out in summer, and be removed in the fall and kept in the cellar during winter?

Is *Deutzia crenata* a hardy plant that can be left out in the garden?

Will you please give some rule by which to decide the proper depth to plant seeds of annuals?

How are Roses budded?—A. B., *Cottonwood, Wash. Ter.*

Hydrangea Otaksa may be managed in the manner proposed. In cold climates it can have the same treatment as *H. hortensis*.

Deutzia crenata will stand in the open grounds in all parts of Washington Territory and Oregon.

The general rule for sowing seeds is that the finer they are the shallower they

are to be planted; but much depends on the kind of seed and the character of the soil. In a fine, light soil most flower seeds an eighth of an inch in diameter would be suited if covered a half inch in depth, and larger seeds deeper, and finer ones shallower; but Sweet Peas in a light soil may be planted four inches deep.

Roses are budded by inserting a bud taken from a plant of a variety that is desired to be propagated beneath the bark



of a plant of some other variety. The plant into which the bud is inserted is called the stock. Seedlings of some kind of wild Rose are usually employed as stocks; or the stocks may be raised from cuttings or layers. Budding is performed at a time when the growth is nearly complete, but while the plants are yet well supplied with sap, and ready to commence a new growth. With plants in the open ground this condition exists in perfection immediately after the flowering season of early summer. In budding, two or three leaves are removed from the stock at that part where the bud is to be placed, a horizontal stroke is made with a sharp knife just deep enough to cut through the bark, and from this a perpendicular stroke is made for about an inch downwards; a small piece of bark containing a bud from which the leaf has been removed is then cut from a shoot of the variety to be propagated, and any wood that may have come away with it is removed, leaving the bark with the bud, which is then slipped into the slit made in the stock and underneath the bark; a bandage of Basswood bark, Corn husk, or woolen yarn is now bound around the the wound closely, so as to exclude the air, and tied firmly. In a week or ten days the bark of the bud will have united with the wood of the stock. At this time the bandage can be unwound and tied more loosely, but still somewhat firmly. Later in the season it can be removed altogether. The appearance of the bud and of the stock at the place of insertion is shown by the accompanying figures.

FACTS, COMMENTS AND QUERY.

I wrote you, only this morning, "My little Australian plants were doing nicely," and so they were then; but alas! for human hopes. The day was fine, I put them out and they were accidentally upset, and my little darlings lost. To-night, as I look at the vacant place, for I had them in my room, I feel just as if some loved living thing had died. I had nursed them so many days and nights, and to-night I miss them. If you have any more seeds will you kindly send me a few?

The MAGAZINE has opened up a new world to me. It was kind and thoughtful in Mrs. J. H. WILLIAMS to tell us her experience with annuals blooming in winter. There are so many of us who can not afford the more costly winter-blooming plants, who will be delighted to try her plan.

Last Christmas day I saw a dear little Morning Glory bloom in a window. The lady had put fresh earth to some window plants, and the seed had got there by chance; nothing could have been prettier. The season, the name Morning Glory, and the flower, so delicate, pure and chaste. After the holidays it died, although she tried to keep it, for she was very proud of it.

"The Garden Society," by SUSAN POWER, is good, as all that comes from her pen always is.

Will you please tell how to propagate Hoya?—MRS. JOHNSON, Philadelphia, Pa.

The Hoya is increased by cuttings; they should have a heat of seventy-five to eighty degrees and a moist atmosphere to root them freely.

AGAPANTHUS.

I have an Agapanthus in bloom. Does it need rest after blooming, as the Calla does? It has had eighty buds and blossoms this year. Is the bloom of the Agapanthus with striped foliage the same color as the kind with green foliage?—MRS. O. J. W., State Centre, Iowa.

After blooming, the Agapanthus in the pot can be plunged in the open ground until the cool weather of autumn requires it to be removed to the house. During this time it should receive but little water. In winter it should be kept in a dry, cool place and have water occasionally; a light cellar is a good place for it until spring. About the first of March it can be brought out and started into growth. The striped-leaved variety has flowers of the same color as the green-leaved one.

PALM—FUCHSIA—DAPHNE.

What treatment is best for the Date Palm? Do the Fuchsias come from seed, and how old must they be to bloom?

Should the Daphne be watered regularly through the summer?—E. P. D., Covington, Ga.

The Date Palm, during the growing season, requires a constant supply of water at its roots; this can be decreased at the cooler season of the year, but the plant should not be allowed at that time to go entirely dry. All the heat nature

supplies during the warm season is welcome to it, and it is best even in the dormant stage that it should have a temperature of sixty-five degrees or more.

Fuchsias are raised from seed by florists who wish to obtain new varieties. The plants are brought into bloom in about a year. The millions of plants yearly raised are produced from cuttings.

Daphne Indica requires good drainage, and after it has made its growth it should receive a diminished supply of water.

EASTER LILY.

Will you please state in your July number of the MAGAZINE how the bulb of the Easter Lily should be treated after blooming, and if it will bear our winters in the open ground, and much oblige—MRS. A. T. PERLY, Naples.

Lilium candidum, often called Easter Lily, is quite hardy and very commonly cultivated in gardens in all parts of the country. A plant that has been forced in a pot in the house should be turned out in the garden border. It will be better to employ a new, strong bulb for another season's forcing than to use the same one twice.

PASSIFLORA PRINCEPS.

I would like to know the best treatment for Passiflora princeps. Are the leaves like the other kinds?—F. R. E., Marilla, N. Y.

Passiflora princeps has heart-shaped, three-lobed leaves, and scarlet flowers. It is a free-grower. It succeeds best planted out in a well-prepared border in a warm greenhouse, and its stems and branches trained under the rafters. In a place that suits it it will keep in bloom a large part of the year.

GOOSEBERRY WORM.

I see you advise to use White Hellebore for the Magpie or Gooseberry moth. Is there not danger of poisoning the berries?—Z. W.

No danger whatever. The powder is washed away by the first rain, and the fruit is always washed before using.

WHEAT—RYE.

The *Rural New-Yorker* claims to have nine plants which are hybrids between Wheat and Rye. "The heads of one plant," it says, "are very different from either of these grains. Should this cross produce a new grain as hardy and prolific as Rye, giving flour of a better quality, it would prove a great acquisition."



A MODEL WINDOW FOR A SHADED ASPECT.

A MODEL WINDOW GARDEN.

The *Gardeners' Magazine*, (English), in a late issue gives an engraving of a "Model Window Garden," from which we have prepared the present illustration. Its description is in these words:

"The window figured has a serious disadvantage in being excluded from direct sunshine by neighboring walls. It occu-

pies a recess, and though fairly illuminated, it is so ill adapted for flowers that they must be frequently renewed to keep them in any degree good enough for the place. It is important, however, that this particular window should always present a tasteful and cheerful appearance, and the decoration adopted has secured the end desired. At the foot of the wall

strong plants of Hibberd's Emerald Ivy were planted. These have richly covered the wall beneath the window, and have run up on either side, forming a capital frame work. A window box was constructed for the purpose, with ample capacity for sustaining plants, and with openings in front for a fringe of Ferns. The remainder of the story is told in the picture—Ivy, Palms and Ferns combine to make a fresh and beautiful picture, and they all thrive in a situation ill adapted for flowering plants. The greenhouse supplies the Palms and Ferns, and consequently the window is put out of dress in the autumn. In fact, its appearance in summer is alone of consequence."

In those parts of this country where the Ivy could not be employed as it has been in this case, its place could be supplied with the Japan Ampelopsis, *A. Veitchii*; or, if it should be desirable to employ a summer climber instead of a perennial one, the Pilogyne or the Madeira vine could be fully relied upon for the purpose.

THE SQUASH-ROOT BORER.

A correspondent of the *Country Gentleman* gives the following personal experience with Squash vines and their root-borers. His method of preventing the attack of this destructive vermin is worthy of general trial. "A few years ago I lost my Squash vines in the way here described. After the vines had grown to be about two feet long, they began to wilt and die. I pulled some of them up, and found several borers in each root, their heads buried deep in its substance. The next spring I began early to make inquiries what to do to prevent this. I found out, and have practiced every year since, this remedy: Dissolve saltpetre in water, an ounce of saltpetre to a gallon of water. Pour this freely on the young plants as soon as they come out of the ground, till the earth is thoroughly wet. In four or five days repeat this operation. At the same distance of time repeat this again. Probably about three times will be enough. I do not wait for the Squash vines to wilt or show any signs of the presence of the enemy, but apply the preventive, whether needed or not. It will do no harm. Since I began this practice I have never had any trouble." This remedy was published in volumes two and three

of this MAGAZINE, with instructions to commence to apply the saltpetre water when any of the vines indicated the presence of the borer. The method of commencing when the vines are a few days old and successively repeating the application is probably more completely preventive of the borer's work, and we hope our readers who may have occasion will not only give the method a trial, but report to us the results of the same.

A GARDEN JOURNAL.

July 2. Thinning Okra, hoeing Lima Beans and Corn, and nipping back Coleus, and giving the flower beds generally a cleaning up.

3, 4 and 5. Hoeing; the copious rains make the weeds grow very fast.

6 and 7. Finished tying up, and stopping out-door Grape vines.

9 and 10. Hoeing walks and cleaning up.

11. Sowed Endive; used the first Butter Beans; poling Lima Beans.

12 and 13. Planting Celery.

14. Stopping laterals in the cold grapyery. Thinning out Muscat Grapes that were not ready when the others were thinned.

16. Hoeing and planting Celery.

17. Putting in Begonia and Fuchsia cuttings. Pinching back Coleus and Achyranthes in the flower beds, so as to make them spread and fill all vacancies.

19. Budding some stocks with a few choice varieties of Cherries.

20. Finished planting Celery. Used the first ripe Tomato to-day.

21. Hoeing, raking and rolling walks, and cleaning up.

23 and 24. Tying out-door Grapes the second time.

25. Tying up Lima Beans.

26. Putting in some Coleus, Bouvardias, Lemon Verbenas and Ampelopsis Veitchii.

27. Sowed seed of Cos and Early Egg Lettuce, for fall use; also, Pansy seed for forcing in winter and spring.

28. Sowed seed of White Spine Cucumber in cold-frame, to force for fall use.

30. Cleaning in shrubbery border. The Chasselas Grapes in the cold grapyery are commencing to color.

31. Tying Chrysanthemums, Roses and other plants.

TOADS.

Noticing the article on "Cockroaches and Toads," in the May MAGAZINE, I felt desirous of sending you my experience, not with cockroaches, but with toads. "The despised toad," as we often hear it put, is a great friend of mine, and from what the late H. B. ELLWANGER says of it in his book on the Rose, I am quite sure it found favor with him.

Now, I am afraid my subject may cause sundry horrors, shudders and cold chills in some, all of which would disappear upon a growing acquaintance with our "mutual friend," the toad. As to his eating cockroaches, J. E. C. says, "am I right?"

By your leave, Mr. Editor, I will bear testimony on this point by relating one of my first experiences with toads. It was in England; but the cockroaches had been brought from some tropical part, I believe the West Indies, along with some military baggage belonging to Lord BERESFORD, and which had been deposited near enough to the garden building for the cockroaches to find their way into a room used by the kitchen-garden hands as a mess-room. Here was a large brick hearth, with a thick cast-iron plate for a back; these were kept constantly warm by the fires over which the men warmed their tea and coffee, and these, together with the crumbs of bread, &c., to be found on the floor, encouraged the insects to colonize, and they seemed to multiply in spite of all stamping crusades that were carried on against them. They would not be trodden out. One remedy was to put crumbs in wine bottles and place sticks for the "roaches" to use as ladders to get into them, and as they could not crawl out again they were scalded or otherwise massacred. The men, knowing we kept toads in the greenhouses, would bring their bottled cockroaches sometimes just for the fun of seeing my pet toads gobble them up. I might say a good deal as to their interesting actions during some of the roach-hunts, their failures and second attempts, of which, however, there were not many, as their almost invisibly quick tongue-thrust almost always took in the cockroach the first "lick." And these West Indian cockroaches were of a size not to be despised either, as large as fair-sized almonds many of them.

I dare say that many of your readers will think, that while brevity is the soul of wit, it may not be an undesirable inspiration in a toad story, so my remaining words shall be few.

I regard toads as indispensable in my garden, both under glass and out of doors. They devour large quantities of insects, especially of the beetle tribes, as an examination of their excrements will show by the undigested wing cases. They also eat ants, angle-worms and the larvæ of potato bugs, for which they ought, if necessary, to have special protection from Congress. "But they are such horrid things;" well, I used to abominate them as much as any body. "But don't they give you warts?" If they did, I would have had two handfulls instead of fingers and thumbs, long ago. "But if you touch them they squirt at you." Well, I cannot deny that they sometimes do, and this seems to be their sole means of offense or defense, and, in fact, it is neither of these, for analysis tells that what they eject is as pure as distilled water, so I have been informed on good authority.

Then, what an eye a toad has; one of the most beautiful in nature. And lastly, how interesting it is to watch a toad at the time he changes his skin, shuffling, by very slow degrees, out of his old coat and calmly tucking it into his mouth with both hands, until he has slipped the last of it over his head, thus preventing an accumulation of old clothes, and at the same time the existence of second-hand clothing stores in the toad community. And then what a clean toad he appears, and a clean toad he is, too.—JAMES BISHOP.

SOFT SOAP FOR CODLIN MOTH.

The *Michigan Farmer* is responsible for the following statement: "A pomologist recently made an important experiment with soft soap on the codlin moth. The soap was diluted with water and given an unusually strong odor of carbolic acid. It was then sprayed thoroughly through the tree once a week by means of a fountain pump. The tree thus treated bore a heavy crop of fruit with not one wormy Apple. A tree twenty feet away, which had not been treated, bore less fruit, and three-fourths of it was wormy."

DEUTZIA GRACILIS.

The Deutzias are all beautiful shrubs, and each species and variety has some attractive quality peculiar to itself, thus among them there is much diversity with a general similarity. *D. gracilis* is the most dwarf growing, scarcely becoming two feet high. No plant can bloom more profusely, and in early summer it is with us a mass of blossoms, the branches being literally loaded throughout their whole length with its leafy panicles* of



DEUTZIA GRACILIS.

small, snow-white flowers. The present illustration shows them as seen at the end of a branch, and nearly full size.

The plant is quite hardy, and its small size often secures it a place where a larger shrub would be less appropriate. This plant is a great favorite for winter forcing, to which treatment it takes most kindly. Plants taken up and potted in October, in fibrous loam with a little old manure, and taken into a cool house and brought on slowly, will come into bloom in mid-winter when it will be highly prized. This is a plant that should be almost universally raised, as in size it is

adapted to small places, and its beauty entitles it to position in all grounds. It is of easy culture, being suited with ordinary garden treatment, and it can be increased as fast as may be desired by cuttings, either of the ripe or the green wood, or by layers.

ROSES AND OTHER PLANTS.

How are Moss Roses propagated, and is there such a thing as a pure white Moss Rose? I gave a nurseryman seventy-five cents for a Rose labelled "Perpetual White Moss." I cut the top off within

four or five inches of the ground; it grew well but the Roses are of a light pink color, very flat, showing an ugly green and yellow center, petals so closely recurved that the whole flower has the appearance of being half wilted. Buds are only slightly mossy, just enough to make them look as if infested with insects. Now, did I ruin this Rose by cutting it off below where it had been budded or grafted, or was I imposed upon?

Can Dahlias and Paeonies be increased by layering, if so, when is the best season, and would plants of the latter be strong enough to endure wintering in the garden?

Will it injure a Crown Imperial to bear seed? How should the seeds be treated, and how old must the seedlings be before they will bloom?

Will La France and Marechal Niel Roses survive the winter out of doors if the tops are bent down and covered with earth? If so, can you mention other monthly Roses that can be wintered in the same manner?—MRS. S. J. G., *Western, Neb.*

Moss Roses may be propagated by cuttings, layers and by budding. Budding is the method most practiced in increasing plants of this class of Roses. The Rose described evidently is not a Perpetual White Moss, but it is a

Moss Rose of some variety if the buds are "slightly mossy," as stated; but if this statement had not been so clearly expressed, we should be inclined to think that the plant had been cut away below the bud, and the flowers since borne to have been those of the stock.

Dahlias and Paeonies increase by their tubers. The latter are quite hardy.

Strong plants of Crown Imperial will not be injured by seed-bearing. Seedlings will not bloom until the root-stocks or bulbs become strong, probably three years.

Plants of La France Rose can probably

be so protected in the open ground as to be shielded from the rigors of a Nebraska winter, but it is doubtful if those of Marechal Niel can, or, at least, it would not be practicable to do so. Try the Hybrid Perpetuals.

TREATMENT OF SOME PLANTS.

What kind of treatment does the English Ivy require to induce a rapid growth?

Does not pinching back a Fuchsia retard the blooming season?

Will not Asters, raised in a seed-bed, have as fine flowers as if they had been transplanted?—A SUBSCRIBER, *Morristown, Minn.*

The English Ivy in the house should be potted in a rich loam, and be placed in a light place, and during the summer season while growing be well supplied with water. Less water will be required at other seasons.

Pinching in the ends of the shoots of a Fuchsia probably retards its blooming somewhat, but it causes numerous branches to form, and improves the shape of the plant and makes possible the production of a greater number of flowers.

Asters raised in a seed-bed, without transplanting, will run up straight and spindling, and bear three or four flowers at the summit; while by transplanting the growth is checked for a short time, and then numerous side branches push out, giving the plant a fine form; at the same time a mass of fibrous roots are formed, and the plant is thus capable of producing its flowers in great numbers.

IRIS CHANGING COLOR.

Please tell me why the Iris behaves so outrageously here in New Bedford. I plant all those lovely ones, and the first year they bloom magnificently, only that once; ever after they bloom a dingy white. So awfully provoking. What ails them, anyhow, the unprincipled things!—A SUBSCRIBER, *New Bedford, Mass.*

Why Iris should show herself so unlovely to New Bedford folk we do not know; she has always worn her handsome garments here, and delivered her message with modest grace. Can it be that there is a lack of hospitality and that the "cup of cold water" has been refused? Or, to drop the figure, is the soil too dry? If any of our readers have had any experience similar to the above, or can give any information or advice that may be of assistance in this case, it will be a pleasure to hear from them.

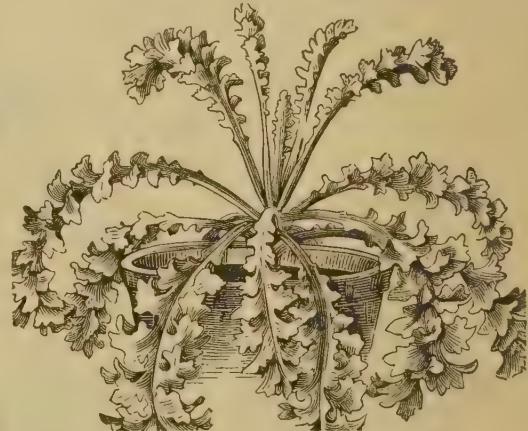
WHITE WORMS IN FLOWER POTS.

Can you tell me how to destroy the small flies which swarm around my house plants? The earth of the plants soon becomes filled with a small white worm.—MRS. A. J. C., *Fremont, Neb.*

A method of destroying the white worms mentioned above was made known by one of our correspondents a few years since, and it has frequently been tried and verified by others who have read the account. It consists in inserting into the soil through the drainage hole of the flower pot two or three common matches. The phosphorous on the ends of the matches destroys the worms. "Daisy Eyebright's" remedy is to spread a tablespoonful of wood ashes on the surface of the soil and dig it in.

HARDY HORNED POPPY.

Glaucium corniculatum proves to be quite hardy. As an edging plant it will, therefore, do excellent duty, even in cold



climates for two years, being a biennial. The second year the plants commence to bloom early, and the bright yellow flowers are very welcome at that time. Seeds started in the house the last of winter, or early in March, will make fine plants for bedding out, and will bloom the first season.

SUMMER PRUNING.

Regulate the growth of small plants, shrubs, vines and young trees by pinching off the ends of the shoots desired to be checked, and thus avoid much pruning at other seasons.

MORE FROST.

A frost is reported as doing much damage in New England on the night of June 14th, and that the Cranberry crop at Cape Cod is seriously injured.

EXPERIENCE WITH GERANIUMS.

In the May number of the MAGAZINE I read W. D. R.'s "Experience with Geraniums," and in the June number I find a communication from S. D., Indianapolis, Ind., asking for the experience of others with old Geraniums for winter blooming. Now, I have cultivated window plants for only a few years past, consequently my experience is not extensive, but in the matter of winter blooming Geraniums it corresponds precisely with that of W. L. R. I can never get fall cuttings to bloom the following winter, nor even to grow perceptibly. For two or three years after I began to cultivate a winter window garden I used Geranium cuttings that had been rooted in the fall or summer previous, and with no success whatever. The plants flourished but little, putting out a few new leaves, and remained about the same size as when they were rooted, until spring opened, when they began to grow beautifully, and during the following summer, when they were about a year old, and after they were removed from the windows to a large flower-stand on the piazza, they bloomed, and were the admiration of all who saw them.

After this had happened two or three times, I decided to root my cuttings earlier, and after several experiments I find that Geraniums about a year old will give better satisfaction in winter than younger ones. I have already rooted cuttings for next winter, and shall use, besides, a few young plants that were rooted last August but have not yet showed any signs of blooming. These will be more than a year old next winter, and according to former experience will be the best blooming plants. I need hardly say that if any buds shall appear on these plants before October, they will be pinched off without delay. My windows afford a south and east exposure; I have never tried a west window. Soil and temperature, in my case, are pretty much the same as described by W. L. R., perhaps a little higher temperature during the day, say from 70° to 80° . The varieties mentioned in the same communication are very fine for house culture; to these let me add, from my experience, Mrs. James Vick, Defiance, Master Christine, Mons. G. Lowagie and Illuminator.

I would like to ask if any of the MAGA-

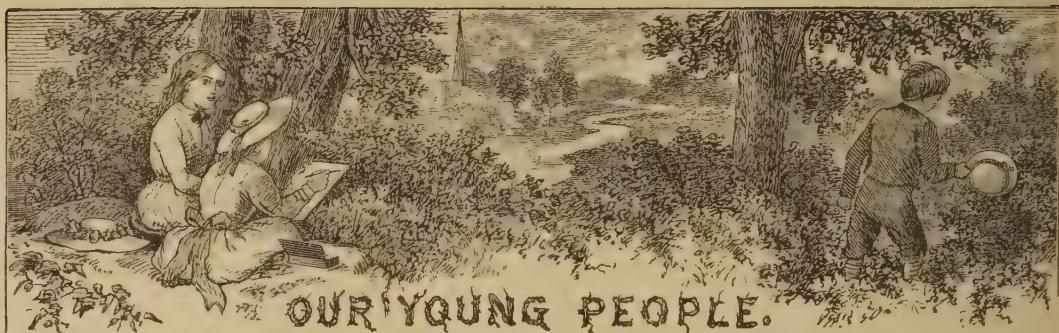
ZINE readers have ever used Cotton seed meal as a fertilizer, and with what results. I am using it, this year, in my flower garden, but very cautiously. Several farmers, in this section, have used it for a year or two on Corn and Potato crops with brilliant success; but it is said to require much judgment in using, as it is very strong and "a little of it goes a long way." I will be glad to hear, through the MAGAZINE, from any one who has used it in flower culture, and to give my experience with it later on.—MRS. CHAS. C. PRICE, JR., *Elizabeth City, N. C.*

OLD vs. YOUNG GERANIUMS.

In regard to the remarks of S. D., of Indianapolis, Ind., about old *versus* young plants of Geraniums for winter bloomers, my experience corroborates W. L. R. For six years I have depended mainly upon the Geranium for flowers for my store windows, and I had rather have one old than three young plants. I have a New Life Geranium that is six years old, and it is covered with blossoms all winter long, and it is not unfrequently that I hear the remark, "That plant is worth five dollars." In fact, the New Life, with me, is almost useless until it is two years old. I cut back all my Geraniums about June 1st to within six inches of the ground, and plunge them out doors with little or no care until I take them in in the autumn; then repot and pinch in, and they are ready for another winter. Perhaps I should mention that I pick off all buds during the summer from my winter blooming plants.—L. R. COOK, *Yarmouthville, Maine.*

TO ALL OUR READERS.

We are daily receiving in business letters, and otherwise, most gratifying remarks in regard to the MAGAZINE and the manner in which it is conducted. Its influence for good is felt and appreciated by an ever-widening circle of interested readers, and we have, therefore, no hesitation at this time in asking a little personal effort on the part of all our subscribers to bring it to the notice of friends and neighbors who are yet unacquainted with it. Especially do we call attention to the opportunity offered for clubbing with the best literary magazines and illustrated weeklies, and that gem for every household, *Good Cheer.*



OUR YOUNG PEOPLE.

FOURTH OF JULY PICNIC.

At breakfast, one morning, Mr. Hunt's family were discussing the manner in which they should spend the coming Fourth of July. Arthur, their eldest son, wanted to go to their nearest metropolis, where a sham fortress was to be bombarded by small artillery, etc. His father proposed, instead, that they should devise some method by which all could equally enjoy the day, from himself and their mother down to Robbie and Pet.

Then Pet suddenly broke the silence, saying, "Me and Rosie Moore want to go to the 'big woods' for flowers, and eat breaksut on the ground."

"Why is not Pet's idea a good one," inquired Mrs. Hunt.

"That would do," said Kate, "if I could have Mary Moore along."

"And I," said Arthur, "should want her brother Jim along." Whereupon Mr. Hunt added :

"And your mamma and I should want Mr. and Mrs. Moore." So that seemed to settle the matter, and all left the table laughing, all but Rob; he was in tears, and sobbed out,

"You've all got somebody but me. Mr. Moore's haven't got any boy 'bout my bigness, and I won't have any Fourth of July at all."

Instantly dear little Pet's arms were about his neck, while she cooed and whispered to him that there was " lots of Fourf July in the 'big woods,' and he could get a bakset full, and could play with her and Rosie." But he called her a "little goose," and said he didn't "play with girls."

Then she left him and sat down in a funny little pout, until she thought to say, "I dess if I'm a dirl I ain't a doose," and then wondered why they laughed.

Then papa said, "Robbie, do you think

that your mamma and I would plan good times for the others and not for you? Come here." Then followed a long private talk, after which Rob assumed rather lofty airs, but told no one his secret.

Mr. and Mrs. Hunt soon afterward exchanged ideas relative to the coming picnic, after which Rob was dispatched with a note of invitation to the Moore mansion. On one corner of the folded note was written, "No baskets."

When Rob had received the answer and was about to depart, he astonished Mrs. Moore by confidentially saying, in low tones,

"If you had a boy 'bout my bigness, I couldn't have a real war Fourth of July. Are you afraid of gunpowder, Mrs. Moore?" She assured him she was very much afraid of it, and he rejoined :

"I thought so, all the women are; but I wont hurt you." And off he started.

On the morning of the Fourth, ere the cool airs of night were heated by the hot July sun, or the dews dispersed which had settled the dust of the highways, two family carriages were crunching their wheels in the rich leaf-mold between the giant trees skirting an Ohio forest. O, the grandeur of the leafy firmament above them, and the delicious beauty of the undergrowth beneath them.

The young people could have hugged themselves and each other from a sense of sheer delight at simply being alive amid such surroundings; while Mr. and Mrs. Hunt recalled the haunting words of a noble poet, "God must be glad we love His world so much," and truly felt that every breath was a luxury and every moment a joy.

Presently the woodland became more dense, and there was a halt. All eyes peered eagerly into the dim, misty spaces beyond, and Arthur and Kate nudged

each other as they spied certain signs in the distance which explained the mysterious absence of their father and Pat the day before. Then, toward the same place, drove Patrick, with his light wagon and the beaming face of Judy beside him.

Meanwhile the two families had alighted, looking radiant with their early drive; and Pat, having returned to take the teams in charge, handed a box to Mr. Hunt, saying,

"It's meself 'ud rayther you'd have this in chairge. Wid ivery joult I thought belike meself an' Judy wad be sint to 'Hail Colomby.' Pardon, sir, for me plain spakin'."

"All right," said Mr. Hunt, "but nothing in the box could have harmed you." By this time Arthur and Jim had vanished, being in no mood to suppress their merriment at Pat's timidity. Sitting down near a vine-covered stump, they shortly began to notice the curious fungi growing in tiers at its base, and the last year's Acorns all around their feet, with cups and cones so perfectly fashioned as might put to shame a turning lathe. And still looking, they saw that trailing vines and Lichens and Mosses and Liverwort were everywhere around them. Then they sauntered off to seek the girls, whom they found in ecstacies over a hillside covered with Ferns, and a hollow filled with dead-ripe May-Apples, already discovered while the boys were lounging. While gathering the yellow, oval-shaped fruit, they wondered why it was so named, since only the blossoms appear in May. Jim remembered that in Shakespeare the plant is called Mandrake, and that it was used as one of the charms of the "boiling witch-pots;" and Arthur claimed that from its roots is extracted a powerful medicine.

Kate had her class book of botany with her, and the two girls had each a large herbarium made of blotting paper; and after looking in vain for some really new kind of Fern, they gathered many of such as they found for pressing. The boys assisted in finding different varieties of plants from those they had in their wild flower beds at home. At last, they had collected wild Asters, Columbines, Solomon's Seal, Wood Sorrel, Hepaticas, Jack-in-the-Pulpit, Club Moss or Ground

Hemlock, and many others, also, out of bloom, but which they knew by the green leaves. Quantities of Five-leaved Ivy, or Ampelopsis, were secured to insure plenty of shade for their wild-wood darlings, not the least prized among which being the Sanguinarias, Scarlet Bergamot and Jacob's Ladder.

Finally, weary of roaming, they settled themselves in a cozy group at the top of the Fern bank, near a grand old Tulip tree. Soon they had lapsed into a dreamy silence, half conscious of the glimpses they caught of their mammas and Mr. Moore lounging in hammocks or reclining on druggets and cushions; nor did they even notice the absence of Mr. Hunt and Bob.

But this beatific mood was suddenly dispelled by a thundering explosion in the distance. The echoes took up the sound and sent it from tree to tree until it seemed to be broken in bits and rattling about their ears. The girls grabbed their brothers in dismay, until Rosie whispered that Rob had said there was "war" in that box. Then Mrs. Moore called for a round of cheers in return for the salute, and even Pat, finding himself still alive, joined in with his lusty "hooray," until the echoes rang again.

But the excitement of gunpowder is infectious; and soon the boys had agreed to each make a Fourth of July speech if the girls chose to be the admiring audience. The latter were soon seated on a log in front of which was a hollow stump for rostrum, and which Rob curiously inspected inside. After a little parley, Jim mounted first, with feet well spread across the space for firmer footing. Then, bowing to the audience, his right hand was stretched high in air, and coming down upon the other with a ringing slap, he exclaimed, "Conscript Fathers!"

Mary instantly cried out, "Why, James Moore! that's not the way to begin, we're not Romans."

Then the audience fell to laughing, while poor Jim looked quite dazed for a moment, when—siz! fiz! pop! snap! whiz! and lo! a fusilade was assailing Jim from inside the stump, and Rob was swinging his hat and cheering lustily. As Jim beat a retreat to escape their shouts a whole line of small fire-works went off behind the log where the girls

were sitting. Then it was their turn to scream and run; and Robbie Hunt was the happiest boy alive.

And then Judy's dinner was ready, and Pat announced the same with great pomp by means of a gong which must have been a combination of tin pan and gridiron. When all were seated around the primitive table, with its bountiful supply of provisions, the blessing asked by Mr. Moore had never seemed to the young people so appropriate a thing to do as when so surrounded by the beautiful and majestic creations of a loving Father.

Of course, the dinner was in every way appetizing, from the quality of the coffee and broiled chicken, etc., to the dessert course of cakes, cream, ices and fruits which issued like magic from under the rubber canvas of Pat's wagon. The Moore's complimented Judy's skill in preparing such a dinner, and praised her deft management of the kerosene stove, whose fiery eyes still blazed away near the wagon. And then, amidst her blushes, Pat shook his fist at her from behind a tree, because no mention had been made of his share of the work.

"But never mind," said Mr. Moore, "nutting time is to come yet, and we'll see if an autumn picnic cannot be made delightful, too;" at which remark, of course, there was more nudging of elbows and exchange of glances between the younger ones.

Rosie and Pet were in a state of felicity. A little bird swung himself on a tilting limb over their heads and twittered a few notes for them. A Cricket jumped into Pet's lap and then into Rosie's jelly, which, of course, made them laugh. Then a clean-looking green worm thought to let itself daintily down by a silken thread just in front of them; but there was no laugh that time. They only squirmed and wriggled about as though trying to turn into worms themselves.

Finally, dinner being ended, the gentlemen sought their hammocks and magazines, while the ladies went off for a long stroll. The rest disappeared, no one but themselves knew where. But all enjoyed to the full what seemed like the sacred beauty of a primeval forest still left by the vandal hand of man to fashion itself in God's own way.

When, at last, the party noted the wan-

ing sun, and knew that day would not tarry, they gathered with one accord in response to Pat's call that the teams were ready. After a pleasant drive in the glow of the western sky, the carriages halted at Mr. Hunt's gate, and stood alongside for a pleasant "Good bye" and "Good night;" and all agreed that a pleasanter day was never spent, where old and young were equally delighted. Even Rob was more than satisfied.—AUNT MARJORIE.

THE OLD ENGLISH OAK.

In a country village in England stood an Oak tree. It was the pride of the village. Its branches thrown in an arch over the road met half way in a loving embrace an old Chestnut tree which stood directly opposite. The oldest inhabitant of the village of Shawbury remembered only that it looked just as large and afforded just as grateful a shade to the weary highwayman, and the tired, sun-burnt children of the village, when they were children. I well remember how the old tree impressed me as a child. The fact that my great-grandfather had looked upon it and gathered its falling acorns, and that, probably, his great-grandfather had done the same, invested the old tree with an indescribable charm to me. I looked reverently upon the acorns which held, in their inmost core, a power to carry to posterity even for a thousand years just such a tree as the one now looming up so grandly against the blue sky. Yes! the old tree did preach many a sermon to me, and taught many an interesting lesson.

Not far from the tree stood the village church. This, too, was said to be a thousand years old, none living could tell its true history; it had a tower which contained eleven bells. It had pillars which supported the roof, and in these pillars, made of stone, were niches, like half-formed bowls, which, some one told me, were made to hold the holy water, for the old church was built when the Church of England followed the customs of the Church of Rome. It had a stained glass window in the chancel, representing the virgin Mary and the infant Jesus, which was said to be of marvellous age. It had a pulpit nearly reaching the ceiling, and from which I could only see the rector's head and part of his shoulders. It had

seats with backs so high that I could lie on one and fall fast asleep as securely as in our old home.

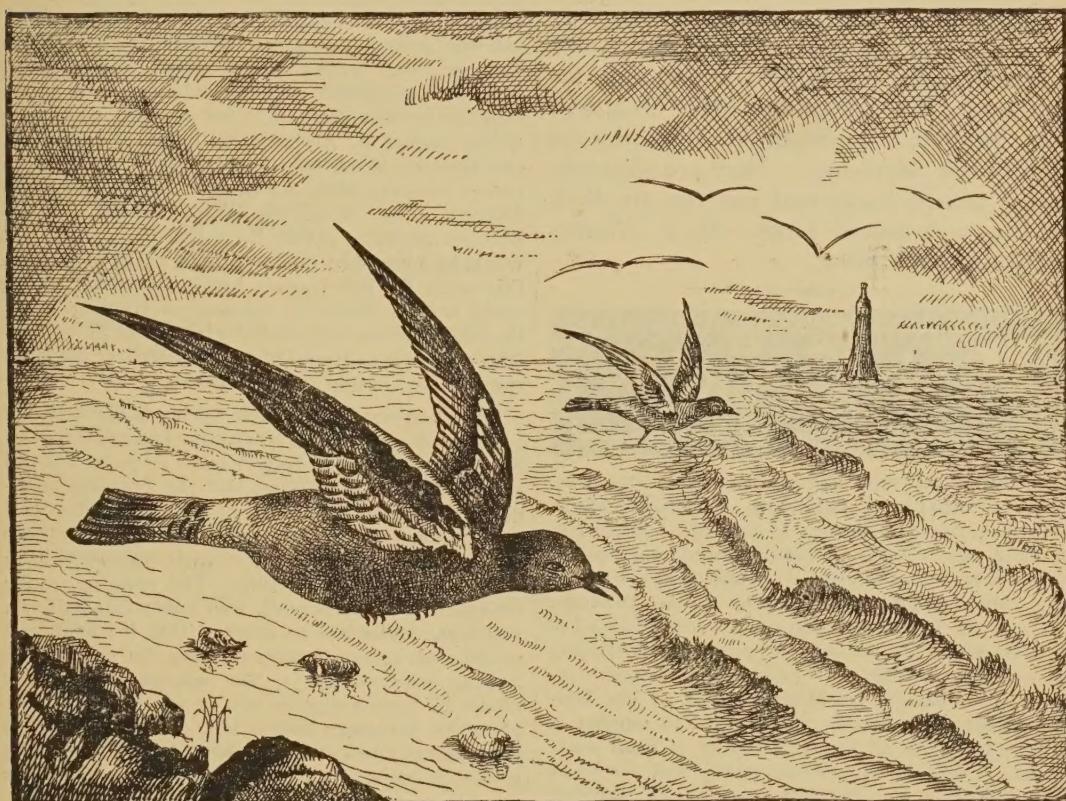
The old church and the old tree were coteremporaries, and to my mind were linked together in all memories of the past. The Nightingale's song and the Owl's low, dismal mutterings seemed always to proceed from one or the other. The very fact of their silence and unwritten history only gave additional charms to both.

When Queen VICTORIA was crowned the villagers danced in the shade of the

ax was laid to the root, and my beloved tree is no more. Poor Sir VINCENT! rich in lands, perhaps, but how sadly wanting in that which makes the man.—M. H. S.

MOTHER CAREY'S CHICKENS.

There is a family of little sea-birds which fly far away from land and over the wide ocean, called "Stormy Petrels," or Mother Carey's Chickens. They love the sea best when it is in its roughest and stormiest moods, and no matter how high the billows may roll their heads, or the



old Oak, and the eleven bells from the Ivy-clad tower pealed forth a merry chime, which echoed along the distant forest, and made low, sweet music among the hills.

Thirty years have passed, and I love to think of the old church and tree standing, mutually cheering and supporting each other, each knowing the other's secret; but, alas, a letter comes from a friend of the village, who says, "Our dear old Oak has been cut down. Sir VINCENT CORBETT, who owns the village and much of the surrounding lands, had become somewhat embarrassed financially, and had signed its death warrant." So the

waves be lashed into foam, these birds fly over the water and plunge between the hollows of the waves to seek their food. The reason of their delight is that the greater the disturbance of the water the better their chance of finding food, for it is by this very roughness that the small fish and whatever substances they may crave are brought to the surface, and then the birds easily satisfy their hunger.

They look as if actually walking upon the water, for their feet are so constructed that, with the help of their long, pointed wings, they skim over its face; hence the name, "Sea Runners." "Petrel" is from the Italian word, *Petrello*,

which signifies "little Peter," and they are thus called because when eagerly searching the water for food, they sometimes almost sink as they walk or run upon the waves, as did the disciple PETER when walking on the water to reach the LORD as He appeared to him.

By the sailors, "Mother Carey's Chickens" are looked upon with dread and superstition, as they consider their visits an omen of evil.

The plumage is dark, nearly a sooty black, with a slight mixture of white. It varies in the different species, of which there are four.

These little birds are found on the seas of all parts of the world, and their strength of wing is wonderful, and far out upon the ocean the little creatures may be seen. Their flight is similar to that of the Swallows. They are scarcely larger than a Lark, and are the smallest of the web-footed birds.—M. E. WHITEMORE, *New York*.



DESMIDS OF THE UNITED STATES.—The Rev. FRANCIS WOLLE, of Bethlehem, Pa., has made a most valuable contribution to scientific literature in a handsome volume of two hundred and twenty pages of text, and fifty-three colored plates, containing eleven hundred illustrations of the Desmids. This is the first systematic work ever published in this country upon the subject; what has heretofore appeared in relation to it being mostly papers contributed to various scientific journals. "The Desmids form a large group, nearly equal in number of species to that of all the other orders of fresh water Algae. They are microscopic plants, and are to be found floating free in pools, ponds and sluggish streams in all parts of the world, at least, representatives of them are to be met with in every clime from the frigid arctic latitudes to the torrid equatorial zone. In every country, however, there are varieties of Desmids that have not been found elsewhere; a remark which applies peculiarly to the United States, where nearly one hundred species, wholly distinct from any heretofore known, have been discovered, and are now for the first time collectively described in this work." The author began about ten years since to study and classify these vegetable forms, and at that time only about one hundred and sixty of the five hundred species described in this work were known to American students. When it is considered how laborious this work must have been, and especially that part of it relating to the newly discovered species, it will be difficult to understand how time could have been found in which to make the drawings and paint the eleven hundred illustrations that are there so faithfully rendered. To microscopists and botanists it is

a work of rare value, and by them the author will continue to be held in much repute and esteem as an able discoverer, writer and delineator of the interesting and beautiful organisms peculiar to this division of cryptogamic plants. The book can be procured from the author for five dollars a volume, which is a low price even for the mechanical labor expended on each copy.

OUR FAMOUS WOMEN.—Twenty authors have written sketches of the lives of thirty of the famous women of this country, and these form a handsome volume of more than seven hundred large octavo pages, and illustrated by sixteen fine steel engraved portraits, by eminent engravers. This work is published by A. D. WORTHINGTON & CO., of Hartford, Conn. In these sketches we get much that is of the greatest interest in relation to the character and the domestic life of some American women who have distinguished themselves in literature, science, art, music and the drama, or are famous as heroines, patriots, orators, educators, physicians, philanthropists, etc., with numerous anecdotes, incidents and personal experiences. Of the subjects of the thirty sketches we here mention a few of them, Louisa M. Alcott, Susan B. Anthony, Catharine E. Beecher, the Doctors Blackwell, Rose Terry Cooke, Charlotte Cushman, Mary Clemmons, Margaret Fuller, Lucretia Mott, Elizabeth Stuart Phelps, Harriet Beecher Stowe, Francis E. Willard, &c., &c. It would be a pleasure for us to make selections from this work for our readers, but it impossible, as we could not do justice by repeating a few lines when the whole volume is crowded with matter of interest. The volume is executed in the best style of art in all respects, and is sold at three dollars.

EVERYBODY'S PAINT BOOK.—This is the name of a small volume by F. B. GARDNER, and published by M. T. RICHARDSON, New York. From a general examination of its contents and the practical application of some of its teachings it is evident that this book is one which housekeepers, and especially those in the country, would find it to their interest to have ready to consult at any time. The painting of the interior of a house is work that a lady can perform, and many ladies are so situated that it would be a positive advantage to them to have the occupation, and an improvement to the appearance of their rooms to have a coat or two of paint. This book gives the necessary instruction, not only for house painting but much else, and there are few families to whom it might not be the means of saving many times the amount of the dollar it costs.

RETURNING TO JOURNALISM.—We note with pleasure the announcement of the *American Agriculturist* that JOSEPH HARRIS again takes a position as one of its editorial staff. Mr. H. made himself familiar to the public years ago in the columns of the *Genesee Farmer*, and afterwards by his *Walks and Talks* in the *American Agriculturist*, and his reputation is wide spread and substantial as a clear, reliable and instructive writer, supporting and advancing the interests of modern and progressive science in its practical relations to the agricultural arts. We congratulate the *Agriculturist*, and believe that both its interests and those of the great farming public of this country will be highly served by the accession of Mr. HARRIS to its official fraternity of writers.

AMERICAN POMOLOGY.—The proceedings of the American Pomological Society at its session of last year, contains a fine steel portrait of its venerable President, the Hon. M. P. WILDER.